



# Drug-Induced Baboon syndrome: A 10-year retrospective study of clinical and drug profiles

Ouissal Hormi<sup>1</sup>, Zerrouki Nassiba<sup>1, 2</sup>, Zizi Nada<sup>1, 2</sup>

<sup>1</sup>Department of Dermatology Venereology and Allergology, CHU Mohammed VI, Oujda Morocco., Oujda, Morocco <sup>2</sup>Laboratory of Epidemiology, Clinical Research, and Public Health, Faculty of Medicine and Pharmacy, Mohammed First University, Oujda, Morocco, Oujda, Morocco

# Introduction & Objectives:

SDRIFE, also known as "Baboon Syndrome," is a rare drug reaction characterized by a symmetrical erythematous rash predominantly affecting intertriginous regions and pressure zones. First described in 1984, this syndrome is often associated with the systemic administration of various drugs, although its pathophysiological mechanisms and drug profile remain poorly understood. This study aims to analyze the drug profile involved in triggering SDRIFE, identifying the most frequently implicated molecules and exploring their potential mechanisms of action.

# Materials & Methods:

We conducted a retrospective, descriptive, and monocentric study at a university hospital center over a 10-year period (2014–2024).

# **Results:**

A total of 34 cases of SDRIFE were diagnosed over the study period. The mean age of the patients was  $46.8 \pm 18.7$  years, ranging from 19 to 72 years. A slight female predominance was observed, with a female-to-male ratio of 1.2.

The drugs implicated in SDRIFE were diverse, with antibiotics accounting for the majority of cases (56%). Among the antibiotics, beta-lactams were most frequently involved, with amoxicillin responsible for 10 cases (29.4%) and the combination of amoxicillin/clavulanic acid implicated in 6 cases (17.6%). Macrolides, such as clarithromycin, were identified in 3 cases (8.8%). Nonsteroidal anti-inflammatory drugs were the second most common class of drugs, implicated in 18% of cases. Within this group, ibuprofen was responsible for 4 cases (11.8%) and diclofenac for 2 cases (5.8%). Anticonvulsants, primarily carbamazepine, accounted for 12% of cases. Other drugs, including barbiturates (phenobarbital), proton pump inhibitors, and beta-blockers, were less frequently implicated.

The median time from drug intake to the onset of skin lesions was 24 hours, with a range from a few hours to three days. The clinical presentation was characterized by symmetrical erythematous eruptions, which were consistently localized to intertriginous regions (axillae, inguinal folds, and inframammary folds) in all patients. The buttocks were also affected in 85% of cases. The lesions were erythematous, sometimes pruritic, and purpuric in 6 cases (17.6%). No mucosal involvement or systemic symptoms were observed.

Discontinuation of the causative drug resulted in rapid improvement in all cases, with complete resolution of lesions occurring within 3 to 7 days. Symptomatic treatment with topical corticosteroids was required in 90% of cases. None of the patients required prolonged hospitalization or admission to intensive care.

To confirm the diagnosis, drug reintroduction tests were performed under hospital supervision in 9 patients (26.5%). In all cases, reintroduction led to the recurrence of lesions at the same sites within hours of administration. Skin biopsies were conducted in 12 patients (35.3%), revealing a superficial perivascular infiltrate composed of lymphocytes, neutrophils, and eosinophils. Subcorneal pustules were observed in 3 cases (8.8%). These histological findings were consistent with delayed hypersensitivity reactions.

# **Conclusion:**

Although rare, SDRIFE is a benign drug reaction frequently linked to antibiotics, particularly beta-lactams. Prompt recognition of clinical signs and immediate discontinuation of the offending drug result in rapid and complete resolution of lesions, minimizing complications and the risk of recurrence.





# when therapy tastes sour! a case series of adverse drug reactions in dermatology

Iswariya Jaganathan\*<sup>1</sup>, Dinesh Kumar Selvaraj<sup>1</sup>

<sup>1</sup>command hospital airforce Bangalore, bangalore, India

# Introduction :

Cutaneous adverse drug reactions are skin manifestations resulting from systemic drug administration from mild erythematous skin lesions to more severe reactions.

# **Observations:**

Case 1.\*\* 62-year-old female,case of acute myeloid leukemia with severe pancytopenia on Azacytidine-based chemotherapy complaints of multiple red raised skin lesions over body of 02 weeks.Examination:multiple erythematosus oedematous papules,nodules/pseudomesicles over dorsum of both hands and ears.Histopathology:intense neutrophilic dermal infiltrate,no atypia.Diagnosis:Azacytidine-induced Sweet's syndrome

**2.**28-year-old male, acute pancreatitis with multiple pinhead clear/pus-filled skin lesions over neck and axillae of 4 days, on Inj Tigecycline. Examination multiple pinhead pustules/vesicles over neck, axillae and inguinal folds. Histopathological examination suggestive of subcorneal pustulosis composed of neutrophils as well as scattered neutrophils within the epidermisDiagnosis: Tigecycline induced acute localised exanthematous pustulosis

**3.**64-year-old female c/o carcinoma breast, complaints of painful swelling, redness over face, hands/feet for two weeks. On docetaxel chemotherapy four weeks prior to onset. Examination multiple oedematous purpuric plaques with erosions over periorbital, perioral and periarticular thenar areas of both hands/achilles tendon with onycholysis. Diagnosis: Docetaxel-induced periarticular thenar erythema with onycholysis (PATEO) syndrome

**4.**53-year-old female with multiple painful raw areas over oral cavity of 10 days,odynophagia.Nimesulide intake 10 days prior to onset.Examination:multiple polymorphic erosions over the labial,buccal/palatal mucosae.Investigations:severe pancytopenia and eosinophilia.C/o nimesulide-induced mucosal drug eruption

**5.** 62-year-old female, c/o Tuberculosis on ATT, with multiple red raised skin lesions over body and painful oral/genital erosions for 10 days. Examination multiple discrete erythematous papules over limbs and trunk. Oral mucosal erosions present. Histopathology: lichenoid dermatitis.

# **Conclusion:**

I present a series of interesting and less frequently documented cases of cutaneous adverse drug reactions wherin histopathological evaluation made significant changes in the diagnosis and management. While CADRs are a common occurrence in clinical practice, certain rare manifestations remain underreported in the literature. These rare CADRs emphasize the need for clinicians to recognize uncommon drug-induced skin reactions for timely diagnosis, histopathological evaluation and management, contributing to a better understanding of dermatologic responses to drugs





# Toxic epidermal necrolysis following COVID-19 infection: a case report

Aistė Jankevičiūtė<sup>1</sup>, Dominyka Stragytė<sup>1</sup>, Vesta Kucinskiene<sup>2</sup>, Skaidra Valiukeviciene<sup>2</sup>

<sup>1</sup>Medical Academy, Lithuanian University of Health Sciences (LSMU) , Department of Skin and Venereal Diseases, Hospital of LSMU Kauno Klinikos, Kaunas, Lithuania

<sup>2</sup>Medical Academy, Lithuanian University of Health Sciences (LSMU) , Department of Skin and Venereal Diseases, Hospital of LSMU Kauno Klinikos, European Reference Network for Rare and Complex Diseases of the Skin (ERN-Skin) member, Kaunas, Lithuania

# Introduction & Objectives:

Stevens-Johnson syndrome/Toxic epidermal necrolysis (SJS/TEN) is a rare emergency skin disease characterized by widespread skin detachment. It is typically triggered by medications or infections [Shah H, et. al. 2024]. Some authors report a potential link between COVID-19 infection and SJS/TEN. They suggest that COVID-19 infection activates immune response, which may directly induce SJS/TEN or increase drug hypersensitivity and risk of drug induced SJS/TEN [Zou H, et. al. 2023].

# Materials & Methods:

We report a clinical case of successfully treated TEN, possibly linked to immune dysregulation after COVID-19.

# **Results:**

An 82-year-old woman presented with a worsening painful erythematous rash followed by blister formation on the face, trunk, extremities, and mucosal membranes. One month earlier, she was hospitalized for chronic pyelonephritis exacerbation and received intravenous cefuroxime for 7 days. Two days later she developed a fever, and COVID-19 infection was confirmed. Symptomatic treatment, including NSAIDs and omeprazole, was continued for 5 days. A week later, a rash appeared on her back, raising concern for a drug-related reaction. As TEN was suspected, all previously used medications for comorbidities (valsartan, amlodipine, rosuvastatin, apixaban, levothyroxine, tiapride, and donepezil), as well as all newly prescribed medications, were discontinued.

Examination demonstrated erythema, targetoid lesions, blisters, skin detachment with a positive Nikolsky sign, and crusts, involving 30% of her body surface area. Histopathology showed epidermal necrosis and detachment with dermal inflammation, which was compatible with TEN. Direct immunofluorescence was negative. SCORTEN was 3, indicating a 35% mortality rate.

Lab tests revealed elevated CRP and urea levels, hypokalemia, hyponatremia, hypoproteinemia, and hypoalbuminemia. Antibodies to HSV-1, HSV-2, and CMV were negative. In culture from the skin lesions grew *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

For treatment, methylprednisolone 100 mg/day i.v. was prescribed for 3 days, followed by oral prednisone 0.6 mg/kg/day. Antibiotic therapy was initiated for a secondary bacterial infection. Aseptic wound care, protective dressings, pain management, fluid and electrolyte restitution, and nutritional support were provided. Previously used medications were resumed, as they had been taken for a year without triggering the disease.

After 17 days the skin gradually improved, and the patient was transferred to a local hospital to continue the treatment. No recurrence was observed during a 6-month follow-up.

# **Conclusion:**

This case highlights a potential link between COVID-19 and drug induced TEN. Evidence of a possible association is needed from multicenter studies.

/MPOSIUM

# Diagnostic Accuracy of the Lymphocyte Transformation Test for Delayed Hypersensitivity Drug Reactions

2025

Dimitra Koumaki<sup>\*1</sup>, Stamatis Gregoriou<sup>2</sup>, George Evangelou<sup>1</sup>, Vasiliki Koumaki<sup>3</sup>, Aikaterini Doxastaki<sup>1</sup>, Aikaterini Chatziperrou<sup>1</sup>, Dimitrios Mylonakis<sup>1</sup>, Konstantinos Krasagakis<sup>1</sup>

<sup>1</sup>University Hospital of Heraklion, Dermatology Department, Heraklion, Greece

<sup>2</sup>National and Kapodistrian University of Athens, Department of Dermatology and Venereology, Andreas Sygros Hospital, Athens, Greece

<sup>3</sup>Medical School, University of Athens, Department of Medical Microbiology, Athens, Greece

**Introduction & Objectives:** Type IV cutaneous drug reactions, characterized by delayed hypersensitivity, pose significant diagnostic challenges. Identifying the offending drug is crucial to prevent recurrence and guide treatment. The lymphocyte transformation test (LTT), an in vitro diagnostic method, is widely used for such reactions. However, its sensitivity and specificity vary widely, raising questions about its reliability. This study aimed to assess the diagnostic accuracy of LTT in identifying causative drugs in delayed hypersensitivity reactions and to evaluate its correlation with the Naranjo causality algorithm.

**Materials & Methods:** A retrospective, cross-sectional analysis was conducted on patients diagnosed with delayed hypersensitivity drug reactions who underwent LTT testing at a tertiary hospital between 2020 and 2024 at the Dermatology Department of a University Hospital. Clinical records were reviewed, incorporating allergy evaluations and Naranjo algorithm assessments for drug causality. The diagnostic performance of LTT was evaluated, including sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV). Statistical analyses included chi-squared tests, Fisher's exact tests, and Cohen's kappa test.

**Results:** Clinical data from 16 adult patients (87.5% women, mean age 49.19  $\pm$  22.46 years) were analyzed, with 63 LTTs performed during the recovery phase. A median of 4 drugs was tested per patient (range: 1–11), including antibiotics (47.6%), corticosteroids (20.6%), local anesthetics (7.9%), beta-2 antagonists (3.2%), and acetaminophen (3.2%), among others. Positive LTT results were observed in 43.8% of patients and 17.5% of tested drugs. The mean interval between reaction onset and testing was 9.25  $\pm$  6.74 months. Using the Naranjo algorithm as the reference standard, LTT showed a sensitivity of 25%, specificity of 100%, PPV of 100%, and NPV of 36.53%. Positive LTT results were significantly associated with a history of atopy (p < 0.01) and the interval between reaction onset and testing (p = 0.035).

**Conclusion:** Although the LTT exhibited high specificity and PPV, its sensitivity was limited. Diagnostic accuracy is influenced by patient characteristics and timing of the test. Combining LTT with causality algorithms like Naranjo may improve the identification of causative agents in delayed hypersensitivity drug reactions.

YMPOSIUM

#### Avelumab as a triggering factor of drug-induced bullous pemphigoid: a case report and review of the literature.

2025

Konstantina Sarakini\*<sup>1</sup>, Anastasia Therapontos<sup>1</sup>, Chariklia Kouvidou<sup>1</sup>, Vasiliki Karathanasi<sup>2</sup>

<sup>1</sup>General Hospital of Athens Evaggelismos , Department of Pathology, Athens, Greece <sup>2</sup>General Hospital of Athens Evaggelismos , Department of Dermatology & Venereology , Athens, Greece

**Introduction & Objectives:** Bullous pemphigoid (BP) is an autoimmune subepithelial disease characterized by pruritus followed by urticarial plaques and bullae formation on the skin and mucosa. Drug-induced BP includes instances demonstrating clinical, histological, or immunopathological features identical or similar to those of the idiopathic BP and is attributed to the drugs administration. Anti-PDL-1 immunotherapy causes various skin reactions in 30% of the patients such as vitiligo and lichenoid reactions, but the induction of bullous rash, either directly or later, is considered rare (1-5%). Avelumab is an anti PD-L1 medication indicated among others for the first-line maintenance treatment of locally advanced or metastatic urothelial carcinoma and is considered as a rare triggering factor of drug-induced BP.

**Materials & Methods:** A 70-year-old male patient was admitted to our Dermatology Outpatient Clinic due to reported excruciating itching and a generalized bullous rash on the trunk, extremities and scalp of two months duration with mild involvement of the oral mucosa. He was an oncology patient with a history of bladder cancer surgery and current treatment with avelumab. A probable clinical diagnosis of BP was made and a biopsy was performed for histological examination and direct immunofluorescence and a blood sample was received for indirect immunofluorescence. The patient was immediately administered a combined systemic and local corticosteroid therapy in order to achieve control of the emerging skin disease.

**Results:** Histological examination and direct immunofluorescence revealed BP due to avelumab immunotherapy. Indirect immunofluorescence was positive (anti-BP180, 1:160). At the follow-up visit clinical remission was observed and the patient was referred for further oncology assessment. As the patient had been a favorable avelumab responder, the continuation of the immunotherapy was decided upon close collaboration with our dermatology department in order to immediately diagnose and treat potential relapse of the BP in order to avoid the discontinuation of an optimal oncology treatment.

**Conclusion:** Anti-PDL1-associated BP is characterized by prominent persistent itching that precedes skin lesions. It is likely that PD-1 inhibition deregulates T-regulatory cells, resulting in increased B-cell proliferation and the production of autoantibodies, mainly against BP180. Early diagnosis and treatment of BP with topical and/or systemic corticosteroids help control the disease, significantly reducing the need for permanent discontinuation of immunotherapy, which highlights the importance of collaboration between medical specialties.





# **Mucosal involvement during DRESS syndrome**

Belharti Kaoutar<sup>1</sup>, Nada Tahri<sup>1</sup>, Zerrouki Nassiba<sup>2</sup>, Zizi Nada<sup>2</sup>

<sup>1</sup>Department of Dermatology Venereology and Allergology, CHU Mohammed VI, Oujda Morocco., Oujda, Morocco <sup>2</sup>Department of Dermatology, Venereology, and Allergology, Mohammed VI University Hospital, Oujda, Morocco 2 Laboratory of Epidemiology, Clinical Research, and Public Health, Faculty of Medicine and Pharmacy, Oujda, Mohammed First University, Oujda, Morocco, Oujda, Morocco

# Introduction & Objectives:

Drug reaction with eosinophilia and systemic symptoms (DRESS) is a heterogeneous, life-threatening drug hypersensitivity reaction that can occur days or weeks after initiation of a drug. The aim of our work is to describe the mucosal involvement of patients hospitalized for DRESS syndrome.

# Materials & Methods:

We carried out a retrospective, descriptive, monocentric study conducted in the Dermatology Department, spread over a 10-year period, from June 2014 to June 2024, including all cases of DRESS syndrome.

#### **Results:**

We enrolled 51 patients with DRESS syndrome. The average age of our patients was  $51.2 \pm 20.9$  years, with a sex ratio of 1.68:1. Half of our patients were febrile (47%), a generalized rash was noted in all our patients, with a mean erythematous surface of  $68 \pm 20.6\%$ , facial edema was present in 66.6% of cases. Mucosal involvement was present in 57% of patients, oral involvement in 53%, isolated in 35%, associated with ocular involvement in 13.7%, associated with genital involvement in 2%, with ocular, oral and genital mucosal involvement in 2%, and isolated genital involvement in 2%. Involvement consisted of enanthema in 47% of cases, and erosions or bullous lesions in 4%. These patients received topical symptomatic treatment.

# **Conclusion:**

Drug hypersensitivity syndrome is a serious reaction to drugs. Given its rarity, a detailed analysis of the clinical picture is essential to improve management and prevent its occurrence.





# The drug profile of Steven-johnson syndrome and Lyell syndrome

Belharti Kaoutar<sup>1</sup>, Zerrouki Nassiba<sup>2</sup>, Zizi Nada<sup>2</sup>

<sup>1</sup>Department of Dermatology Venereology and Allergology, CHU Mohammed VI, Oujda Morocco., Oujda, Morocco <sup>2</sup>Department of Dermatology, Venereology, and Allergology, Mohammed VI University Hospital, Oujda, Morocco 2 Laboratory of Epidemiology, Clinical Research, and Public Health, Faculty of Medicine and Pharmacy, Oujda, Mohammed First University, Oujda, Morocco, Oujda, Morocco

# Introduction & Objectives:

Steven-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are potentially fatal mucocutaneous disorders due to the extensive epidermal detachment that occurs during disease progression. SJS and TEN are considered a continuum of disease and are distinguished by their severity, which is based on the percentage of body surface area detached. The aim of our work is to describe the drug profile of patients who have presented with Stevens-Johnson syndrome, TEN or an overlap.

# Materials & Methods:

We carried out a retrospective, descriptive, monocentric study conducted in the Dermatology-Venereology Department, spread over a period of 10 years, from June 2014 to June 2024, including all cases of Stevens-Johnson syndrome, TEN or the overlapping syndrome of the two.

#### **Results:**

We enrolled 9 patients with Stevens Johnson syndrome or TEN or an overlap between the two. The mean age of our patients was  $38 \pm 26.3$  years, and there was a clear predominance of females, with an F/H sex ratio of 2. Concerning the pathological history of our patients, forty-four percent were being followed for epilepsy, 22.2% had atopy, metastatic breast cancer was reported in one patient, and diabetes, hypertension and hypothyroidism were present in one patient each.

In our series, 44.4% of patients presented with Stevens-Johnson syndrome, 44.4% with overlap syndrome, and 11.1% with TEN. The use of a single incriminating drug was noted in 44.4% of patients, compared with 55.6% of patients who were polymedicated. The average delay between the rash and the first medication of all drugs was  $13.1 \pm 5.8$  days, shorter for antibiotics and longer for antiepileptics. The most frequently incriminated drugs were antiepileptics in 35.2% of cases, led by Lamotrigine, followed by antibiotics (29.4%) with trimethoprim-Sulfamethoxazole in the lead, anti-inflammatories and antipyretics (17.6%), proton pump inhibitors (5.8%), Allopurinol in 5.8% of cases, and chemotherapy molecules (Docetaxel) in 5.8%.

# **Conclusion:**

Stevens-Johnson and TEN, severe forms of SCARS, are often induced by drugs such as antibiotics, anticonvulsants and non-steroidal anti-inflammatory drugs. Rapid identification of the trigger drug and its immediate discontinuation are essential to the management and prognosis of these potentially life-threatening conditions. Pharmacovigilance and awareness of severe skin reactions are crucial to preventing these syndromes.







#### Bleomycin-induced flagellate erythema in a patient with mediastinal seminoma: a case report

Krisha Lim<sup>\*1</sup>, Maria Carla Buenaflor<sup>1</sup>, Winlove Mojica<sup>1</sup>

<sup>1</sup>Philippine General Hospital, Dermatology, Manila, Philippines

# Bleomycin-induced flagellate erythema in a patient with mediastinal seminoma: a case report

**Introduction:** Flagellate erythema or flagellate dermatitis is characterized by pruritic linear streaks of erythematous or brown patches and plaques, presenting with a whip-like appearance. The lesions are associated with various etiologies like consumption of shiitake mushrooms, rheumatologic disorders, and drugs, among others. Its association with bleomycin as an adverse reaction was first reported in 1970. It is a rare phenomenon with a reported incidence of only 8 to 20%.

2025

**Case Report:** This is a case of a 29-year-old male with mediastinal seminoma who was started on bleomycin, etoposide, and cisplatin (BEP) regimen. He developed pruritic erythematous papules and linear streaks of erythematous and brown patches and plaques, most prominent on the trunk and extremities ten days after starting the chemotherapy regimen cycle. The initial presentation was subtle, with worsening after continued administration of bleomycin. A skin punch biopsy showed spongiotic interface dermatitis with eosinophils, and the patient was managed symptomatically.

**Conclusion:** Flagellate erythema is a rare form of cutaneous adverse reaction to bleomycin. It may initially present with subtle skin changes but the temporality of bleomycin administration and the evolution of the lesions, becoming whip-like linear streaks, may guide clinical diagnosis. The disease course is varied and histopathologic findings are nonspecific. Treatment involves discontinuation of bleomycin and supportive management of symptoms.





# Purpuric Eruption Following Cytarabine Therapy in a 61-Year-Old Patient with Acute Leukemia

Inas Chikhaoui<sup>1</sup>, Sara Nejjari<sup>1</sup>, Soumia Chiheb<sup>1</sup>

<sup>1</sup>Cheikh Khalifa Bin Zayed Al Nahyan Hospital, Dermatology, Casablanca

#### Introduction & Objectives:

Cytarabine is a chemotherapeutic agent used in the treatment of acute leukemia. While effective, it is associated with various side effects, including hematologic and cutaneous toxicities.

We report a case of a 61-year-old male with acute leukemia who developed a purpuric eruption on the abdomen and lower limbs following the first cycle of cytarabine.

This case highlights the importance of recognizing cytarabine induced cutaneous reactions and differentiating them from other potential causes.

# Materials & Methods:

A 61-year-old male with acute leukemia received his first cycle of cytarabine as part of induction therapy. Seven days posttreatment, he developed a purpuric rash on the abdomen and lower limbs. Clinical examination revealed non-blanching, purpuric lesions without signs of infection. Laboratory tests indicated severe thrombocytopenia (platelet count: 15,000/mm<sup>3</sup>), likely cytarabine-induced, with no evidence of coagulopathy or systemic infection.

The rash resolved after platelet transfusion and discontinuation of cytarabine. Differential diagnoses included cytarabineinduced thrombocytopenia, drug-induced vasculitis or hypersensitivity, infectious causes, and coagulopathy or other hematologic disorders.

# **Results:**

Cytarabine is known to cause myelosuppression, particularly thrombocytopenia, which can

manifest as purpuric eruptions. The mechanism of purpura in this context is primarily

related to platelet dysfunction and decreased platelet production, leading to bleeding

into the skin. Additionally, cytarabine can induce vascular endothelial damage or immune-mediated reactions, contributing to cutaneous toxicity. Similar cases have been reported in the literature, emphasizing the need for vigilance in monitoring patients receiving cytarabine. Early recognition of cutaneous side effects is crucial to prevent complications and guide appropriate management. This case underscores the importance of educating healthcare providers about the cutaneous toxicities of cytarabine and their potential impact on patient care.

#### **Conclusion:**

Purpuric eruptions in patients receiving cytarabine are rare but significant adverse events,

often linked to thrombocytopenia or vascular toxicity. This case highlights the need to

consider cytarabine-induced cutaneous reactions in the differential diagnosis of purpura in

hematologic patients. Awareness of these side effects and prompt management can improve patient outcomes and ensure safer administration of cytarabine in acute leukemia

treatment.





# Acneiform Eruptions Induced by Ceftazidime in a Patient with End-Stage Renal Disease

Iman Al-Rusheidi\*1

<sup>1</sup>AL Musanaah Extended Health Center, Dermatology , AL Musanaah, Oman

# Introduction & Objectives:

Drug-induced skin reactions can present diagnostic challenges, particularly in complex patients undergoing intensive therapies. This case report highlights a rare instance of ceftazidime-induced acneiform eruptions in a patient with end-stage renal disease (ESRD). It underscores the importance of recognizing such reactions promptly to prevent recurrence and optimize management.

# Materials & Methods:

A 26-year-old female with ESRD on hemodialysis, diabetes mellitus, and hypertension developed severe acneiform eruptions following intravenous ceftazidime administration for a catheter-related bloodstream infection (CRBSI) caused by *Pseudomonas aeruginosa*. A comprehensive dermatological evaluation was performed, including clinical history, physical examination, and photographic documentation. The Naranjo Adverse Drug Reaction Probability Scale was used to assess the likelihood of ceftazidime as the causative agent.

#### **Results:**

The patient developed inflammatory papules and pustules on the face, back, and extensor limbs one week into ceftazidime therapy, accompanied by post-inflammatory hyperpigmentation (PIH). Despite worsening lesions, the eruption was not initially attributed to ceftazidime and the antibiotic course was completed. The lesions resolved gradually over six weeks after discontinuation of the drug, though residual PIH persisted.

Three months later, the patient was re-exposed to ceftazidime for recurrent CRBSI. Within five days, a similar eruption reappeared. This time, ceftazidime was promptly discontinued, vancomycin was initiated, and the Port-A-Cath was removed to control the infection. With supportive topical therapy, the skin lesions resolved completely, and no further complications occurred.

#### **Conclusion:**

This case underscores the importance of recognizing acneiform eruptions as a potential side effect of ceftazidime, particularly in vulnerable patients. Delayed recognition can lead to re-exposure and recurrence, prolonging patient discomfort. Dermatologists should maintain a high index of suspicion for such reactions and advocate for early intervention to prevent unnecessary continuation of the offending agent.





# Levofloxacin-induced Generalised Fixed Drug Eruption: Case Report

Hiebda Sofía Martinez Jiménez<sup>1</sup>, Claudia Ivet Rosales Zamudio<sup>2</sup>

<sup>1</sup>XXI Century National Medical Center, Internal Medicine, Ciudad de México, Mexico
<sup>2</sup>XXI Century National Medical Center, Internal Medicine, Internal Medicine, Ciudad de México, Mexico

#### Introduction & Objectives:

A fixed drug eruption (FDE) is a type of toxicodermatitis induced by a hypersensitivity reaction type IV. Fixed drug eruptions account for 14–22% of all cutaneous drug reactions. Nonsteroidal anti-inflammatory drugs and antibiotics are most commonly responsible for FDE.

Only a few cases of quinolone-induced FDE have been reported in the literature.

#### **Materials & Methods:**

We present a case of a generalized FDE following treatment with levofloxacin.

#### **Results:**

A 72-year-old female with a history of chronic heart failure and chronic coronary syndrome, both of which were untreated by personal choice, presented to the Emergency Department. The patient had no known drug allergies. The patient had a clinical presentation of dehydration, accompanied by asthenia, adynamia, fatigue, and a cough that produced white sputum, chest radiography revealed a consolidation in the left lower lobe. Pneumonia was diagnosed, so the medical team initiated empirical antibiotic therapy with intravenous levofloxacin. Hours after levofloxacin administration, the patient developed disseminated dermatitis involving the chin and both upper and lower extremities. The lesions were characterized by oval erythematous-violaceous plaques with well-defined borders. Twelve lesions were identified. No orogenital lesions were observed. The patient denied recent exposure to other medications, therefore, given the association of levofloxacin with the dermatosis, this antibiotic was immediately discontinued. After suspension, the skin lesions began to fade, resulting in residual post-inflammatory hyperpigmentation. Topical treatment with conventional emollients and triamcinolone was initiated for three weeks.

Due to the inability to perform confirmatory tests, we used the Naranjo algorithm to determine the causal relationship between the drug exposure and adverse reaction and obtained a score of 6. The adverse reaction was considered "probable," based on the following criteria:

The adverse event appear after the suspected drug was administered (2+).

The adverse reaction improve when the drug was discontinued (2+).

There were no alternative causes (other than the drug) that could cause the reaction (2+).

Based on the clinical findings, a diagnosis of levofloxacin-induced generalized FDE was established.

#### **Conclusion:**

Skin reactions to drugs are a common cause of dermatological consultations, accounting for 2–5% of all skin diseases. The generalized variant of FDE remains underreported, highlighting the importance of documenting cases with rare clinical presentations. Given the increasing use of antibiotics in medical practice, as well as the high incidence of skin reactions associated with these drugs, practitioners must be informed about possible associated adverse reactions. Recognizing

drug reactions in a timely manner and improving their diagnosis and management contribute to patient safety and prevent potential complications.





# Papulo-pustular rash of the face and trunk

Amal Hamdi<sup>1</sup>, Khadija Sallemi<sup>1</sup>, Fatma Hammemi<sup>1</sup>, Rim Chaabouni<sup>1</sup>, Emna Bahloul<sup>1</sup>, Abdelrahmen Masmoudi<sup>1</sup>, Hamida Turki<sup>1</sup>

<sup>1</sup>Hedi Chaker Hospital, Sfax, Tunisia

# Introduction & Objectives:

Epidermal growth factor receptor (EGFR) inhibitors are targeted anti-cancer agents. These molecules cause cutaneous, phanereal and ocular toxicities. The aim of this study is to report the adverse effects of EGFRs.

# Materials & Methods:

We report a new observation illustrating the adverse effects of epidermal growth factor receptor (EGFR) inhibitors in a 72year-old man with a history of digestive carcinoma.

#### **Results:**

A 73-year-old patient presented with a generalized acneiform rash. He had been treated for colorectal cancer with EGFR inhibitor-based targeted therapy for the previous 3 months, and dermatological examination revealed multiple purpuric erythematous papules and papulopustules on the face, neck and upper back, without comedones. There was paronychia of the fingers and toes with multiple angiomatous nodules around the nails corresponding to pyogenic granulomas. The biology was within normal limits. On the basis of the clinical and paraclinical findings, we concluded that there was double toxicity with treatment, grade 3 according to the common toxicity criteria of the French National Cancer Institute. Chemotherapy was continued, and the patient was put on deoxycycline and dermocorticoids for nail involvement, with satisfactory results.

#### **Conclusion:**

Cutaneous adverse events with EGFR inhibitors are frequently reported. The occurrence of cutaneous adverse events, multiple adverse events and more severe skin lesions has been shown to be closely related to better tumour response and overall survival. Multiple toxicities in the same individual, as in our patient, are rarely reported. Papulopustular reaction remains the most common cutaneous adverse reaction to EGFR inhibitors (50-100% of patients), followed by paronychia (10-30%) in a dose-dependent manner. The coexistence of these two side-effects, the severity of the disease and the rapidity of the favourable outcome make our case unusual. With the increasing use of targeted therapies, dermatologists are now faced with a broad spectrum of cutaneous toxicities. It is therefore essential that dermatologists are aware of these toxicities in order to develop the best approach without interrupting cancer treatment.





# Under-recognition of severe cutaneous adverse reactions in an acute inpatient context: acute generalised exanthematous pustulosis mimicking sepsis

Roisin Rynne<sup>\*1</sup>, Eimear Duff<sup>1</sup>, Róisín Hambly<sup>1</sup>, Cliona Feighery<sup>1</sup>

<sup>1</sup>Our Lady of Lourdes Hospital, Drogheda, Drogheda, Ireland

# Introduction:

Acute generalised exanthematous pustulosis (AGEP) is a rare, yet severe cutaneous adverse reaction, commonly triggered by medication. Its incidence is estimated between 1-5 cases per million per year. While prognosis is generally favourable, severe cases with systemic complications can occur. We report a case of vancomycin-induced AGEP with organ dysfunction and refractory haemodynamic shock requiring vasopressor support, initially misdiagnosed and managed as sepsis.

# Methods:

A single case report, with retrospective chart review and key learning points identified.

# **Results:**

A 69-year-old woman was admitted with abdominal pain, abnormal liver function tests (LFTs), and raised inflammatory markers. She was admitted under a surgical team with a diagnosis of ascending cholangitis, confirmed by imaging.

Initial antibiotic therapy included ciprofloxacin, metronidazole and aztreonam. Vancomycin was added on day three. On day five, she developed pin-sized, non-follicular pustules on a background of erythema in her axilla. Whilst this was documented, a dermatology opinion was not sought. Due to clinical decline, a presumed diagnosis of sepsis was made. Despite multiple different antimicrobial regimes targeted at managing sepsis, she continued to deteriorate (gentamycin added day seven and other antibiotics including vancomycin stopped, tigecycline and meropenem added day eight).

Dermatology was consulted on day nine, at which point she was erythrodermic with sheets of non-follicular, partially confluent pustules. Pseudo-Nikolsky sign was positive. There was no skin pain or mucosal involvement. She was hypotensive and urgently admitted to the intensive care unit.

Laboratory findings showed rising inflammatory markers and an acute kidney injury: white blood cell count 51.9 x10^9/L, neutrophils 47.75 x10^9/L, eosinophils 0.52 x10^9/L, C-reactive protein 421.8 mg/L, and creatinine 319  $\mu$ mol/L (baseline 70  $\mu$ mol/L). LFTs were improving.

In consultation with microbiology and dermatology, the diagnosis of severe AGEP was made, prompting the decision to stop all antibiotics and delay biliary endoscopy. Vancomycin was identified as the likely culprit with impaired renal function prolonging its clearance and the clinical course of AGEP. Rapid clinical improvement ensued following management with topical steroids and emollients. Skin biopsy subsequently confirmed AGEP.

# **Conclusion:**

This case underscores the importance of early AGEP recognition and prompt discontinuation of the offending agent. It also highlights how AGEP-induced systemic inflammation can mimic sepsis, and unnecessary antimicrobial escalation may cause harm. AGEP typically manifests within 72 hours of drug exposure and resolves rapidly on discontinuation. There is no published therapeutic trial on specific treatment of AGEP nor strong data supporting systemic steroids. Despite the severity of this case, she was effectively managed without systemic steroids.





# Recurrent disseminated Granuloma annulare eruption after SARS-CoV-2 vaccination: A case report and a literature review

Zinah Sharara<sup>1</sup>, Niall Hamad<sup>2</sup>, Ronald Muc<sup>3</sup>, Mohammed Al Abadie<sup>4</sup>

<sup>1</sup>Community Dermatology, National Health Service, (HealthHarmonie) and The Midlands Medical Academy, Wolverhampton, United Kingdom

<sup>2</sup>School of Medicine, Keele University, Wolverhampton, United Kingdom

<sup>3</sup>Department of Cellular Pathology, The Royal Wolverhampton NHS Trust, New Cross Hospital, Wolverhampton, United Kingdom

<sup>4</sup>Medical School, University of Central Lancashire (UCLAN) and Department of Dermatology, North Cumbria Integrated Care NHS Foundation Trust, Wolverhampton, United Kingdom

**Introduction & Objectives:** During the COVID-19 pandemic, numerous studies have documented a wide range of cutaneous reactions associated with COVID-19 infection and vaccination against severe acute respiratory syndrome coronavirus (SARS-CoV-2). These reactions include erythematous rashes, urticaria-like eruptions, and vesicular/bullous patterns. Granuloma annulare (GA) is a benign granulomatous skin disorder with an unclear etiology, often triggered by immune responses to infections, medications, trauma, or other stimuli. This case report aims to detail the clinical and histopathological characteristics of an unexpected occurrence of GA following COVID-19 infection and vaccination with the objective of highlighting the potential link between immune activation post-vaccination and GA development.

**Materials & Methods:** We present a case report detailing the clinical and histopathological characteristics of an unexpected occurrence of granuloma annulare (GA) in a 79-year-old male with a history of breast cancer and hypertension who developed recurrent disseminated GA shortly shortly after he received each of his three doses of SARS-CoV-2 vaccination. Skin biopsies showed interstitial granulomatous inflammation with mucin deposition, supporting the diagnosis. Additionally, we conducted a review of the literature concerning several cases of GA reported following SARS-CoV-2 vaccination and COVID-19 infection.

The patient initially presented with a widespread, itchy rash following the first vaccine dose. The rash recurred after subsequent vaccine doses, requiring ongoing topical management, and manged well by the patient.

**Results:** The patient's initial and second presentation of GA was confirmed histopathologically, showing interstitial granulomatous inflammation with mucin deposition. The literature review revealed several cases of GA following SARS-CoV-2 vaccination and infection. These findings suggest a potential link between immune activation post-vaccination and the development of GA.

**Conclusion:** This case underscores the importance of considering GA as a rare but possible adverse cutaneous reaction to SARS-CoV-2 vaccination. The recurrence of GA following each vaccine dose, along with similar cases reported in the literature, reinforces the hypothesis that GA may arise from immune system activation in response to vaccination. Clinicians should be aware of this potential adverse effect, albeit infrequent. Further research is essential to elucidate the underlying immunological mechanisms and optimize management strategies for vaccine-associated GA, guiding dermatological care in similar cases.





# From Cortico-Induced Acne to Isotretinoin-induced Acne Fulminans: a case report

Ilhame Jegoual<sup>1</sup>, Mariem Aboudourib<sup>1</sup>, Saloua Hazmiri<sup>1</sup>, Layla Bendaoud<sup>1</sup>, Ouafa Hocar<sup>1</sup>, Said Amal<sup>1</sup>

<sup>1</sup>hôpital Arrazi mohammed 6, marrakech, Morocco

#### Introduction:

Acne fulminans (AF) is a rare and severe form of inflammatory acne with fewer than 250 cases, it mainly affects adolescent males with pre-existing acne. FA can be classified with or without systemic involvement, and isotretinoin-induced variants have recently been identified. This case is particularly relevant to illustrate, given the acute progression exacerbated by the initial use of corticosteroids.

# **Observation:**

We report the case of a 21-year-old patient, self-prescribed corticosteroid therapy equivalent to 10mg/day prednisone for 1 year. Before consulting a dermatologist 8 days prior to hospital admission for acne, and was started on isotretinoin at 40 mg. Upon admission, the patient presented with an acute outbreak of diffuse acneiform and erosive lesions on the face, trunk, and thighs, two days after starting isotretinoin (40 mg/day). This was accompanied by myalgias, polyarthralgias, epigastric pain, vomiting, and a fever of 39.3°C. Physical examination revealed nodulocystic and multiple erosive lesions with hemorrhagic crusts lesions, on the trunk, face, and thighs. Laboratory tests showed hyperleukocytosis with neutrophilia, and a CRP level elevated to 226. Blood cultures were negative, and the 8-hour cortisol level was within normal limits. The patient was started on prednisone at a dose of 0.5 mg/kg/day (40 mg/day), with isotretinoin discontinued for one month. Isotretinoin was gradually reintroduced while corticosteroids were tapered. The patient's condition improved, both generally and with his skin lesions. He was discharged with follow-up appointments and lesion cleansing sessions.

# **Discussion:**

Acne fulminans is a rare condition whose origin remains unclear. It can be induced by the administration of high doses of isotretinoin at the start of treatment in patients with severe acne. Prolonged use of corticosteroids can lead to inflammatory lesions, sometimes severe, on the face and trunk, known as "cortico-induced acne". This condition can progress into a more severe form, such as acne fulminans, as seen in our patient. This association is still poorly defined in the literature, and the link between corticosteroid-induced acne and the risk of progression to acne fulminans remains unclear. Several factors are implicated, with no clearly established cause-and-effect relationship. The clinical presentation is characterized by the abrupt onset of painful nodules and plaques that can progress to suppurative, ulcerative and hemorrhagic lesions associated with systemic symptoms such as fever, arthralgia as described in our patient.

Treatment of acne fulminans is based on a combination of corticosteroids and isotretinoin. Initially, high-dose oral corticosteroids (0.5 to 1 mg/kg/day) are administered for at least two weeks (four weeks in the case of systemic symptoms) until lesions improve. Isotretinoin is then introduced at a dose of 0.1 mg/kg/day, in combination with corticosteroids, for four weeks. Other treatments may be used, such as dapsone, topical retinoids, photodynamic therapy, surgical debridement, etc.

# **Conclusion:**

Acne fulminans is a severe form of acne, causing severe, disfiguring skin lesions and profoundly affecting patients' quality of life, with significant psychosocial repercussions. The pathophysiology of this condition remains poorly understood, which limits the optimization of treatment modalities.





# Pemphigus triggered by levodopa in a Parkinson's disease patient: a case report

Wijdane Tebbaai<sup>1</sup>, Mariem Aboudourib<sup>1</sup>, Sara Serghini<sup>1</sup>, Layla Bendaoud<sup>1</sup>, Ouafa Hocar<sup>1</sup>, Said Amal<sup>1</sup>

<sup>1</sup>Department of Dermatology and Venereology, Mohammed VI University Hospital, marrakesh, Morocco

# Introduction & Objectives:

Pemphigus is an intraepithelial autoimmune blistering disease mediated by IgG autoantibodies against both desmoglein (Dsg) 3 and Dsg 1, responsible for intercellular adhesion of epidermal keratinocyte. Parkinson's disease has been frequently and recently linked to pemphigus, as a cause or consequence, induced or intensified by medication. We report the case of a parkinsonian patient with levodopa-induced pemphigus vulgaris.

# **Observation :**

A 97-year-old patient, with history of Parkinson's disease treated by levodopa 1 month before the onset of a vesiculobullous eruption with generalized pruritus, which subsequently worsened to generalized skin detachment with an estimated surface area of 36%.

Clinical examination revealed a wet linen appearance, a positive Nikolsky's sign, and a resting tremor and plastic rigidity on neurological examination.

Anatomopathological study of a biopsied bulla showed a deep suprabasal cleavage by acantholysis above the basal layer without necrosis, the dermis is edematous and congestive, with perivascular infiltrates without vasculitis lesions. DIF on perilesional skin shows Epidermal IgG mesh deposits. IIF revealed positive autoantibodies against intercellular substances at a rate of 640 and negative against BP 230 and 180 which is compatible with pemphigus.

The patient received oral steroids 0.5mg/kg per day and levodopa was discontinued. Evolution was marked by involution of skin lesions.

**Discussion :** \*\* Skin disorders in patients with Parkinson's disease can be divided into two major groups, non-iatrogenic disorders, including melanoma, seborrheic dermatitis, bullous pemphigoid, pemphigus and rosacea, and iatrogenic disorders including primarily levodopa.

In a recent uncontrolled cross-sectional study, Parkinson disease was found to be significantly associated with pemphigus.

At least 13 different antigens residing in the central or peripheral nervous system but also in the skin have now been shown to be targeted by IgG, including the desmogleins targeted by pemphigus autoantibodies. In bullous pemphigoid, an obvious association with neurologic conditions has been established. One of the most accepted explanations for this association is the cross-reactivity between the neuronal and epithelial isoforms of BP230.Given that Dsg1 is expressed both on the epithelial cell surface and central nervous system, the hypothesis of cross-reactivity between its epithelial and neuronal isoforms cannot be thoroughly excluded. Further experimental work is required.

However, it is plausible that the drugs might not necessarily cause the breakage of tolerance and induce the disease. They might only act as the triggers to unmask the disease. It seems that distinguishing between drug-induced pemphigus and non is very difficult since both are similar regarding clinical manifestations, reactivity to Dsg3 and Dsg1, IgG and C3 tissue deposition, and results of indirect immunofluorescence analysis . Another important thing to note is the possible difference between disease induction and exacerbation.

#### **Conclusion:**

In conclusion, drugs should be considered as a possible triggering agent in every newly diagnosed patient with pemphigus. Although such cases are relatively rare and difficult to recognize, discontinuing the culprit drug may lead to recovery without any need for aggressive and long-term therapy with immunosuppressive agents.





# Combination Therapy for Dermatofibroma: A Case Highlighting Outcomes and Challenges

Martina Mussi<sup>1, 2</sup>, Michelangelo La Placa<sup>1, 2</sup>, Alessandro Pileri<sup>1, 2</sup>, Bianca Maria Piraccini<sup>1, 2</sup>, Antonio Russo<sup>3</sup>, Davide Melandri<sup>3</sup>, Corrado Zengarini<sup>1, 2</sup>

2025

<sup>1</sup>S. Orsola-Malpighi Polyclinic, Department of Medical and Surgical Sciences, Bologna, Italy
<sup>2</sup>Alma Mater Studiorum - Università di Bologna, Dermatology, Bologna, Italy
<sup>3</sup>Maurizio Bufalini Hospital, Dermatology, Cesena, Italy

# Introduction & Objectives:

Dermatofibromas are common benign fibrohistiocytic tumors, typically managed with surgical excision, laser therapy, or intralesional corticosteroid injections. While corticosteroid injections are widely used for their anti-inflammatory properties, their combination with laser therapy has been poorly explored. We present a case of dermatofibroma treated with a novel combination of 532 nm laser and intralesional corticosteroids, leading to unexpected perilesional atrophy. This study aims to highlight the potential synergistic effects and risks of this approach.

# Materials & Methods:

A 34-year-old woman presented with a dermatofibroma on her right calf. The lesion was firm, erythematous, and measured approximately 1 cm in diameter. The treatment consisted of three sessions, each including 532 nm laser therapy followed by intralesional injection of 1 cc of triamcinolone acetonide diluted in a 1:3 ratio with lidocaine. Treatments were spaced one month apart. Clinical and dermoscopic evaluations were performed at each session and at follow-up visits.

#### **Results:**

After the first two sessions, the lesion showed mild improvement with no visible side effects. However, three weeks after the final session, the patient developed a white halo around the dermatofibroma, followed by perilesional atrophy, which persisted over the following months despite discontinuation of corticosteroid injections. A seven-month follow-up revealed partial revascularization, but the atrophy remained. The incidence of steroid-induced atrophy in the literature is reported to be up to 2% of cases, yet its occurrence with diluted corticosteroids and in combination with laser therapy remains largely unreported.

# **Conclusion:**

This case highlights the first reported instance of perilesional atrophy following the combination of 532 nm laser and intralesional corticosteroids for dermatofibroma. The findings suggest that laser-induced vascular changes may potentiate the effects of corticosteroids, increasing the risk of skin atrophy. Further studies are needed to better understand this interaction and optimize treatment protocols for dermatofibromas and similar dermatologic conditions.





#### Rituximab associated facial Pyoderma Gangrenosum: the first case report

Andraž Jahič<sup>1</sup>, Tanja Planinšek Ručigaj<sup>1</sup>, Bor Hrvatin Stančič<sup>1</sup>

<sup>1</sup>University Medical Centre Ljubljana, Department of Dermatovenereology, Ljubljana, Slovenia

#### Introduction & Objectives:

Pyoderma gangrenosum (PG) is a rare neutrophilic dermatosis. Cases of drug associated PG have been described in the literature. Because of pathergy, predilection sites for PG are most commonly areas exposed to physical trauma with the face rarely being affected.

# Materials & Methods:

Case report.

# **Results:**

An 84-year old woman with a 15 year history of rheumatoid arthritis, managed with rituximab, presented with a growing, painful ulceration, beneath her left eye. The ulcer progressed in the past two months from a painless nodule. The physical examination revealed a shallow, irregularly shaped fibrin covered ulcer, approximately 3x2 cm in size, localized beneath her left eye threatening invasion of the orbita. The perilesional skin was hyperemic to slightly livedoid. Based on the patients history of long-term immunosuppresion and worsening after the third dose of rituximab, an infective cause was primarily suspected. A biopsy was performed, showing suppurative inflammation with necrobiosis, granulomas and vasculitic changes, further suggesting infective aetiology. However, extensive blood tests, skin swabs, PCR tests, histopathology stainings and cultivations from biopsies and skin swabs excluded bacterial, fungal, mycobacterial and viral infections. Paraneoplastic and vasculitic aetiology of the ulcer were also excluded. Therefore PG was suspected and confirmed with PARACELSUS and Delphi criteria. Since the patient was already immunosuppressed, drug induced aetiology was a likely option, so the next dose of rituximab was withheld. Slow but steady reepitelization was observed, with complete healing of the ulcer only a few weeks after skipping the next dose of rituximab. Based on the patients history, negative microbiological investigations, histopathological results and complete reepithelization of the ulcer following the discontinuation of rituximab, the likely diagnosis of rituximab associated PG was established. Based on the Naranjo adverse drug reaction probability scale, the event scored 6 out of 13 points, making the possibility of the PG being an adverse event from rituximab probable.

# **Conclusion:**

To the best of our knowledge, this is the first case report of facial PG associated with rituximab treatment. Rituximab is believed to hyperactivate the classical complement pathway, resulting in production of soluble C3a and C5a, which can activate neutrophils. Immunosuppressive drugs related PG is probably an under-diagnosed disease, because the direct causality is difficult to establish. Diagnosing immunocompromised patients is especially challenging, as infections, requiring entirely different treatment, are the main differential diagnosis. Therefore the diagnosis must be one of exclusion. In conclusion, the identification of rituximab as a trigger of PG and its discontinuation may result in remission of the disease.





# fixed drug eruption : 2 cases report

Kawtar Diaa<sup>1</sup>, Najoua Ammar<sup>1</sup>, Syrine Hamada<sup>1</sup>, Meriame Mzyane<sup>1</sup>, Nadia Ismaili<sup>1</sup>, Leila Benzekri<sup>1</sup>

<sup>1</sup>ibn sina university hospital , rabat

# Introduction & Objectives:

Fixed drug erruption (FDE) is a rare immuno-allergic drug eruption, characterized by erythematous lesions that leave residual pigmentation. The eruption recurs at the same location if the responsible molecule is reintroduced. We report two cases of FDE.

# Materials & Methods:

Case 1: A 41-year-old man presented with a cutaneous-mucosal eruption 24 hours after taking paracetamol, with a history of two similar episodes, featuring the same lesions at the same sites following paracetamol use. Case 2: A 40-year-old woman presented with pruritic erythematous lesions on the body, evolving for 1 day, 30 minutes after taking SMX/TMP for a urinary tract infection, with a history of a similar episode 6 months prior. The diagnosis of FDE was made in both cases based on clinical, historical, and histological data.

# **Results:**

Fixed drug eruption is considered a delayed-type hypersensitivity reaction, with a relatively short onset time ranging from a few days to two weeks. The clinical presentation is variable, and it can be categorized into: classic non-bullous EPF, mucosal EPF, bullous EPF, and non-pigmented EPF. Skin biopsy is not essential for diagnosis, which is primarily clinical. The main drugs implicated include analgesics (pyrazoles, paracetamol, aspirin), antibiotics (sulfamides, tetracyclines, quinolones, dapsone), antiepileptics (phenytoin, barbiturates, carbamazepine), and NSAIDs. The progression is usually favorable, with regression of the lesions, leaving a residual pigmentation that may persist for several months. When the implicated drug is reintroduced, the lesions recur at the same site and may affect initially spared areas. Management involves identifying the responsible drug and its discontinuation. Topical corticosteroids may be recommended to relieve symptoms.

# **Conclusion:**

Fixed drug eruption is characterized by its circumscribed lesions, pigmented scar-like evolution, and the persistence of lesions during subsequent episodes. Management involves identifying the responsible drug and discontinuing it to prevent further episodes.





# **Psychiatric manifestation of DRESS Syndrome**

Meryem El Moustaoui<sup>1</sup>, Hajar EL Hassani Taib<sup>1</sup>, Meriem Chaouki<sup>1</sup>, Najoua Ammar<sup>1</sup>, Nadia Ismaili<sup>1</sup>, Leila Benzekri<sup>1</sup>, Syrine Hamada<sup>1</sup>, Meriame Meziane<sup>1</sup>

<sup>1</sup>Ibn Sina University Hospital, Rabat, Morocco

# Introduction & Objectives:

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) syndrome is a severe toxidermia associated with a variety of medications.

Psychiatric involvement in DRESS is unusual, rarely reported in the literature, and poses diagnostic challenges.

# Materials & Methods:

This is a case of a patient who developed DRESS syndrome with psychiatric symptoms after taking Sulfasalazine.

The patient is a 17-year-old woman who has been followed for rheumatoid arthritis (RA) for 2 years, initially treated with corticosteroids (CS) at a dose of 7.5 mg/day. She was admitted for a DRESS syndrome that occurred 23 days after the introduction of Sulfasalazine. During her hospitalization, the patient exhibited behavioral disturbances including suspicious gaze, anxious attitude, and sad mood. She was evaluated by psychiatrists, leading to the diagnosis of drug-induced psychosis. Pharmacovigilance implicated Sulfasalazine as the cause of the rash and psychosis. Management required discontinuing Sulfasalazine, increasing the prednisone dose, and introducing an antipsychotic and a benzodiazepine. The outcome was marked by rapid regression of the cutaneous and biological signs. The depressive symptoms significantly decreased within the two months following the treatment. All complaints were completely resolved three months later.

# **Results:**

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) syndrome is a severe toxidermia characterized by a clinical and biological presentation combining high fever, skin eruption, facial edema, polyadenopathy, mononucleosis syndrome, eosinophilia, and visceral involvement. The diagnostic criteria of Bocquet include the presence of three conditions such as drug-induced skin eruption, eosinophilia  $\geq 1,500$ /mm<sup>3</sup>, and at least one of the following systemic abnormalities: lymphadenopathy, hepatitis, interstitial nephropathy, interstitial lung disease, or myocardial involvement. Sulfasalazine is a major contributor to DRESS syndrome. Additionally, several psychiatric disorders related to Sulfasalazine have been documented in the literature. The first reported case involved the development of a depressive disorder in a patient treated with Sulfasalazine for ulcerative colitis. However, to our knowledge, the association of DRESS syndrome with psychiatric disorders after taking Sulfasalazine has not been previously reported in the literature.

# **Conclusion:**

It is important to emphasize the value of the collaboration between dermatologists and psychiatrists for the appropriate management of our patient





# **Bullous Pemphigoid Induced by Valsartan**

Kawtar Diaa<sup>1</sup>, Najoua Ammar<sup>1</sup>, Syrine Hamada<sup>1</sup>, Meriame Meziane<sup>1</sup>, Nadia Ismaili<sup>1</sup>, Leila Benzekri<sup>1</sup>

<sup>1</sup>ibn sina university hospital , rabat

# Introduction & Objectives:

Bullous pemphigoid (BP) is an autoimmune disease primarily affecting elderly individuals and is clinically characterized by subepidermal blisters. Although the pathophysiology of this disease is not fully understood, it is likely closely linked to certain medications. More than 50 different drugs have been associated with the onset of BP. We report the case of bullous pemphigoid induced by valsartan.

# Materials & Methods:

A 40-year-old woman presented to the emergency department with numerous blisters and erosions on her body, accompanied by pruritus. Clinical examination revealed multiple urticarial plaques with circinate borders, topped with numerous tense blisters containing turbid fluid, and multiple post-bullous erosions located across the entire body, with involvement of the genital mucosa. Skin biopsy with direct and indirect immunofluorescence confirmed BP. The antihypertensive treatment was discontinued and replaced with a calcium channel blocker. Oral prednisone treatment was started, with gradual dose reduction. The patient showed significant improvement, with regression of the lesions.

#### **Results:**

- Bullous pemphigoid is an immune-mediated reaction targeting hemidesmosome components, leading to the formation of subepidermal blisters. Diagnosis is based on skin histology and direct immunofluorescence. Drug-induced BP is a form of BP triggered by a variety of medications. It differs from the idiopathic form by occurring at a younger age, the presence of unusual mucosal involvement, improvement after discontinuation of the implicated drug, and marked peripheral eosinophilia. Identifying the responsible drug and discontinuing it is essential, particularly in severe cases with life-threatening potential.

# **Conclusion:**

Bullous pemphigoid is the most common autoimmune blistering disease in the elderly and can sometimes be an adverse effect following the introduction of various medications, including antihypertensive treatments. Diagnosis should be made promptly, especially in severe cases that may threaten the patient's life. Identifying and discontinuing the responsible drug is critical, considering the benefit-risk ratio.

MPOSIUM

# Drug-Induced Bullous Pemphigoid Following Pembrolizumab Therapy: A Case Report

Mikołaj Łanocha\*<sup>1</sup>, Anna Tekielak<sup>1</sup>, Karolina Dębowska<sup>2</sup>, Julia Swiatek<sup>2</sup>, Beata Bergler-Czop<sup>1</sup>

<sup>1</sup>Medical University of Silesia, Department of Dermatology, Katowice, Poland <sup>2</sup>Public Independent A. Mielecki Clinical Hospital, Department of Dermatology, Katowice, Poland

# Introduction & Objectives:

Pembrolizumab is a monoclonal antibody that acts as a checkpoint inhibitor, disrupting T-cell regulation by blocking the interaction of a ligand with the programmed cell death-1 (PD-1) receptor. By stimulating the immune response, this drug is used in the treatment of various cancers, including melanoma, non-small cell lung cancer, renal cell carcinoma, and others. One of the most common adverse effects associated with pembrolizumab is skin reactions, which belong to the group of immune-related adverse events (iRAEs). A rare but significant dermatological complication is the development of bullous pemphigoid. The mechanism underlying this condition remains poorly understood, and currently, there are no standardized treatment guidelines available.

2025

# Materials & Methods:

A 73-year-old man with multimorbidity was admitted to the clinic with disseminated erosive and blistering eruptions. Since August 2023, he had been treated with pembrolizumab for metastatic lung adenocarcinoma. The cutaneous involvement appeared in May 2024 following an increase in the drug dose as a result of cancer progression. Owing to the severity of the skin lesions, the patient was disqualified from further oncological treatment. The patient was hospitalized in September 2024 because of a significant exacerbation of pemphigoid, with high CRP levels reaching 72 mg/ml.

#### **Results:**

Direct immunofluorescence (DIF) testing and pemphigus/pemphigoid indirect immunofluorescence (IIF) returned positive results. Treatment included prednisone at 40 mg/day, topical clobetasol cream, and doxycycline 200 mg/day, leading to remission of most skin lesions. However, attempts to taper glucocorticoid therapy resulted in relapses, primarily in the form of blisters on the hands. Dapsone at 50 mg/day was introduced, but it was discontinued after two weeks due to aggravation of chronic obstructive pulmonary disease (COPD), with oxygen saturation dropping to 66%.

Given the patient's worsening condition due to the progression of the underlying disease and disqualification from further oncological treatment, prednisone was maintained at the minimal effective dose along with doxycycline and topical clobetasol cream for continued management. Clobetasol under occlusion was applied to the hands. After two months of therapy, clinical stabilization was achieved, with no further blister formation at a prednisone dose of 20 mg per day.

# **Conclusion:**

Pembrolizumab, widely used in oncological therapy, can cause various skin-related adverse effects stemming from immune system activation. A rare complication is bullous pemphigoid, which may occur early in treatment, after a prolonged period of therapy, or even after its discontinuation. Conditions arising during pembrolizumab treatment often exhibit a more severe course and greater resistance to therapeutic interventions. Additionally, the burden of cancer limits the use of immunosuppressive drugs. Effective management of bullous pemphigoid requires close collaboration between dermatologists and oncologists to optimally control skin symptoms.





# Semaglutide-Induced Erythema Nodosum: A Novel Cutaneous Adverse Reaction to GLP-1 Receptor Agonists?

Tugcan Yuksek\*1

<sup>1</sup>DR. Akçiçek State Hospital, DERMATOLOGY, Girne, Cyprus

#### Introduction & Objectives:

Semaglutide, a glucagon-like peptide-1 receptor agonist (GLP-1 RA), is widely used for type 2 diabetes and has gained popularity for weight loss. While gastrointestinal side effects are well-documented, cutaneous reactions remain largely unreported. To date, only one case of semaglutide-induced erythema nodosum (EN) has been published. Here, we present a second case of EN associated with semaglutide, highlighting a novel cutaneous drug reaction and proposing potential mechanisms related to immune dysregulation and adipose inflammation.

# Materials & Methods:

A 50-year-old woman with a history of total thyroidectomy, on levothyroxine for eight years, began weekly semaglutide for weight management. She had no other conditions or medications. After the second injection, she developed tender, erythematous papules and plaques on her shins, later spreading to her arms, with mild arthralgia but no systemic symptoms.

Laboratory tests showed elevated CRP (21 mg/L; ref: 0-5 mg/L) while hemogram, biochemical panel, and serologic markers (ANA, ENA, RF) were normal. Punch biopsy confirmed septal panniculitis without vasculitis,\*\* consistent with EN. Given the absence of systemic triggers and the temporal relationship, a drug-induced reaction was suggested.

Semaglutide was discontinued, and the patient was treated with oral methylprednisolone (48 mg/day, tapered), topical corticosteroids, and supportive care (rest and leg elevation). The lesions **resolved within three weeks, and she remained asymptomatic for one year**,\*\* confirming a **transient drug-related reaction**.\*\*

#### **Results:**

EN is a well-recognized immune-mediated panniculitis linked to infections, systemic conditions, and medications, though its association with GLP-1 receptor agonists remains largely unrecognized. One possible mechanism is **adipose tissue inflammation driven by GLP-1 receptor modulation**,\*\* as **GLP-1 receptors in adipocytes may influence local immune responses**.\*\* Semaglutide promotes **lipolysis**, **fat redistribution**, and **metabolic changes**,\*\* potentially triggering **localized panniculitis-like responses in predisposed individuals**\*\*

A **hypersensitivity reaction is also plausible**,\*\* as EN is typically a delayed hypersensitivity response **to antigenic stimuli. Since** semaglutide is a peptide-based molecule, it may act as an **antigenic trigger**, **leading to** immune complex deposition and an inflammatory cascade\*\* in septal fat venules.

The previously reported case of semaglutide-induced EN showed **dose-dependent exacerbation**,\*\* suggesting a **cumulative drug effect**\*\* In contrast, our case developed **within two weeks of initiation**,\*\* indicating **variable immune and adipose inflammatory responses depending on patient-specific factors**.\*\* The complete resolution after discontinuation and corticosteroid therapy **further supports a** direct drug-induced mechanism\*\* rather than an underlying systemic disorder.

# **Conclusion:**

With the increasing use of semaglutide for weight loss and metabolic disorders, clinicians should consider drug-induced

EN in patients presenting with new-onset tender nodules while on GLP-1 RA therapy. Further research is needed to explore the mechanistic links between semaglutide, adipose inflammation, and immune-mediated hypersensitivity reactions.



YMPOSIUM



#### Abstract N°: 1128

#### Low dose oral minoxidil associated acute pericarditis - an uncommon occurrence

Frederick Johnson<sup>\*1</sup>, Louise Cruz<sup>2</sup>, Hasanain Abbas<sup>2</sup>, Oliver Johnson<sup>2</sup>

<sup>1</sup>South Warwickshire University NHS Foundation Trust, Warwick, United Kingdom <sup>2</sup>wirral university teaching hospital NHS foundation trust, Wirral, United Kingdom

#### Introduction & Objectives:

Oral minoxidil has been an adjuvant treatment option for resistant hypertension since the 1970s. Early recognition of hypertrichosis as a common side effect, opened up its potential therapeutic benefit for patients with hair loss. Historically, oral Minoxidil is known to be commonly associated with the development of pericardial disorders among severely hypertensive patients. A study by Martin et al in 1980 of 1869 patients with severe hypertension on minoxidil treatment found that 5% developed either pericarditis, pericardial effusion or in some cases cardiac tamponade. Pericardial effusions are estimated to occur in approximately 3% of patients receiving oral minoxidil for hypertension and this adverse effect is seen most commonly amongst those with advanced nephropathy. These adverse effects, amongst others, are largely why minoxidil is a last resort option in hypertension management.

Over recent years, low dose oral Minoxidil (LDOM) has become increasingly popular amongst Dermatologists and is now prescribed for a wide array of hair loss conditions, albeit off license. It is important to note the dose used for hair loss is usually less than 5mg daily. This contrasts with doses given for refractory hypertension which can be up to a maximum of 100mg per day. A recent multicentre retrospective study of 1404 patients treated with low dose oral minoxidil (LDOM) found side effects including hypertrichosis (15.1%), light headedness (1.7%) and peripheral oedema (1.3%). Importantly it was found to be a safe and effective treatment with no occurrence of any pericardial disorders. However, in recent times there has been a small number of reports of pericardial disorders developing in healthy patients receiving treatment with LDOM for hair loss. Dlova et al describe a 40-year-old healthy female who was treated with 0.25mg oral minoxidil daily for alopecia and after 3 weeks developed a pericardial and pleural effusion. Trueb et al reported a case of a young healthy female patient who developed a pericardial effusion within weeks of starting Minoxidil 1.25mg daily. Furthermore, a 53 year old man with androgenetic alopecia developed a large pericardial effusion after 20 days of Minoxidil 5mg daily.

#### **Materials & Methods:**

Our department has recently had a similar experience to the aforementioned cases.

#### **Results:**

A healthy 17-year-old patient, with female pattern hair loss, developed acute pericarditis within several days of increasing oral Minoxidil to 1.25mg daily. It was advised to stop minoxidil completely, but she instead chose to continue a smaller dose and after taking high dose anti-inflammatories her symptoms have largely resolved.

#### **Conclusion:**

It is important for Dermatologists to recognise that whilst LDOM is generally a very well tolerated option for hair loss, serious cardiac complications can occur, and patients should be made aware of this prior to starting treatment.

**/MPOSIUM** 

# Botulinum Toxin Type A in Dermatology: A Comprehensive Review of Applications, Safety, and Adverse Events

Janadi Karawita<sup>\*1</sup>, Sri Nandhitha Karuppiah Saravanan<sup>1</sup>, Divya Sunilkumar<sup>2</sup>, Thisuri Mendis<sup>2</sup>, Tishya Mukherjee<sup>3</sup>, Nancy Emmanuel<sup>4</sup>

<sup>1</sup>Tbilisi State Medical University , American MD Program, Tbilisi, Georgia

<sup>2</sup>Tbilisi State Medical University , Faculty of Medicine, Tbilisi, Georgia

<sup>3</sup>Nicolae Testemițanu State University of Medicine and Pharmacy, Faculty of Medicine, Chișinău, Moldova

<sup>4</sup>University of São Paulo, Hospital das Clínicas of the Faculty of Medicine, Department of Dermatology, São Paulo, Brazil

# Introduction & Objectives:

Botulinum toxin type A (BoNT-A) is a commonly used neuromodulator in dermatology, primarily for treating facial rhytids associated with aging. However, its applications extend beyond aesthetic aging treatments, and its efficacy is well-documented in numerous off-label uses. This review explores the latest dermatological applications of BoNT-A while assessing its safety profile and reported adverse events (AEs).

# Materials & Methods:

A PubMed systematic review followed predefined inclusion criteria with a Boolean strategy: ('Botulinum Toxins' OR 'BoNT' OR 'OnabotulinumtoxinA') AND ('Safety' OR 'Adverse Effects' OR 'Misuse' OR 'Off-Label Use') AND ('Meta-Analysis' OR 'Review' OR 'Controlled Clinical Trial' OR 'Cross-Sectional Studies' OR 'Case Reports'). Only English-language studies published from 2020 to 2024 were included. Two reviewers screened the articles for relevance, and after excluding non-English papers and studies with fewer than 10 participants, 19 studies were included in the final analysis.

# **Results:**

BoNT-A is most commonly used to reduce facial wrinkles and enhance facial contouring through tailored injection techniques. However, the indications for BoNT-A have expanded significantly, with off-label applications now including the prevention of hypertrophic scarring and the treatment of conditions such as primary hyperhidrosis, hidradenitis suppurativa, intertrigo, rosacea, notalgia paresthetica, hidrocystomas, Darier's disease, Hailey-Hailey disease, dyshidrotic eczema, inverse psoriasis, facial paralysis and androgenetic alopecia. Additionally, through optimal dosing, microdosing, and individualized injection techniques, dermatologists can use BoNT-A to control oily skin, reduce pore size, and improve skin texture.

Studies indicate that onabotulinumtoxinA, incobotulinumtoxinA, and abobotulinumtoxinA have comparable success rates, though dosing and side effects may exist. The most commonly reported side effects include pain or swelling (40%), injection-site reactions (20%), ptosis (15%), headaches (10%), and systemic reactions (5%) (Figure 1.). Most adverse effects were mild (60%), while moderate and severe cases accounted for 30% and 10%, respectively (Figure 2.). Local reactions were frequent but typically mild, whereas neuromuscular effects such as ptosis were less common and occasionally moderate to severe. Rare but serious systemic effects included headaches and hypersensitivity reactions (Figure 3.). Notably, the likelihood of injection-related complications was influenced by the practitioner's expertise.

# **Conclusion:**

BoNT-A is a safe and effective dermatological treatment with expanding applications. Despite its potential, it remains underutilized. This review highlights its indications, techniques, and safety profile. While adverse effects are typically mild, proper technique, dosing, and patient screening are essential. Future research should standardize dosing and explore new therapeutic uses, ensuring optimal efficacy and safety.

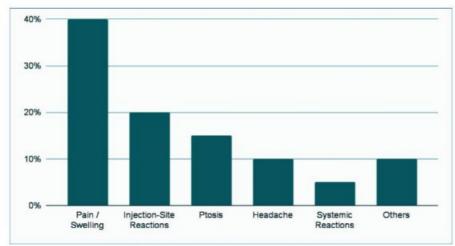


Figure 1. Frequency Of Adverse Effects in Botulinum Toxin Injections

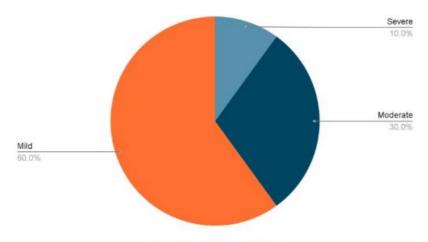


Figure 2. Severity Of Adverse Effects

Category	Common Adverse Events	Severity	Incidence Rate	Mitigation Strategies
Local Reactions	Pain, erythema, swelling, ecchymosis	Mild	Common	Proper injection techniques, aftercare
Neuromuscular Effects	Ptosis, facial asymmetry, unintended diffusion	Moderate	Less Common	Correct dosing, precise targeting
Systemic Effects	Headache, nausea, flu-like symptoms, rare hypersensitivity	Mild to Severe	Rare	Patient screening, dose adjustments
Injection-Related Issues	Improper technique, diffusion to unintended muscles	Varies	Depends on expertise	Trained professionals, avoiding overcorrection

Figure 3. Summary of Adverse Events and Risk Mitigation





# Cyclosporin for the treatment of Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN): a systematic review of observational studies and clinical trials focusing on single therapy, combination therapy, and comparative assessments

Alireza Jafarzadeh\*<sup>1</sup>, Azadeh Goodarzi<sup>1</sup>

<sup>1</sup>Department of Dermatology, Rasool Akram Medical Complex Clinical Research Development Center (RCRDC), School of Medicine, Iran University of Medical Sciences, Tehran, Iran , Tehran, Iran

# Introduction & Objectives:

Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are rare, severe, and potentially life-threatening skin and mucous membrane disorders. They are characterized by widespread skin and mucosal detachment and necrosis, and are classified based on the percentage of total body surface area (TBSA) affected. Given the severe and often life-threatening nature of these conditions, the identification and implementation of effective treatments is crucial. Notably, cyclosporin has demonstrated efficacy in managing these challenging conditions.

# Materials & Methods:

A systematic search was carried out through the PubMed, Scopus, Embase, Web of Science, and Cochrane Library databases until May 2024. Additionally, a manual search was conducted through the reference lists of the included studies to minimize the risk of missing reports.

#### **Results:**

Overall, 17 studies involving 4761 patients were included in our analysis. The majority of the included studies suggested favorable outcomes for the use of cyclosporin in SJS/TEN patients. The use of cyclosporin was associated with improved survival rates, early arrest of disease progression, faster re-epithelialization, reduced length of hospital stays, and lower rates of multi-organ failure. However, a few studies did not find a survival advantage with cyclosporin and even reported an increased risk of mortality, as well as an increased TBSA detachment and risk of infection.

# **Conclusion:**

Most studies indicate positive outcomes with cyclosporin treatment in SJS/TEN patients. This is likely due to cyclosporin's immunomodulatory properties, which may help attenuate the severe inflammatory response associated with these conditions.





# Paradoxical and bimodal immune-mediated dermatological side effects of TNF- $\alpha$ inhibitors: A comprehensive review

# Alireza Jafarzadeh\*<sup>1</sup>, Azadeh Goodarzi<sup>1</sup>

<sup>1</sup>Department of Dermatology, Rasool Akram Medical Complex Clinical Research Development Center (RCRDC), School of Medicine, Iran University of Medical Sciences, Tehran, Iran , Tehran, Iran

# Introduction & Objectives:

The increasing prevalence of immune-mediated diseases, such as psoriasis, lichen planus, rheumatoid arthritis, and inflammatory bowel disease, has led dermatologists to explore new biologic drugs known as DMARDs (disease-modifying anti-rheumatic drugs) in recent years.

#### Materials & Methods:

This study evaluates the immune-mediated dermatological side effects of DMARDs by reviewing and analyzing previous peer-reviewed research on the effects of TNF- $\alpha$  inhibitors in treating skin diseases. The analysis includes the adverse effects associated with these drugs and identifies the main causes of these effects.

#### **Results:**

DMARDs, particularly TNF- $\alpha$  inhibitors, are effective in managing the aforementioned diseases. The study categorizes paradoxical adverse events (PAEs) related to TNF- $\alpha$  inhibitors into three types: true paradoxical, borderline paradoxical, and non-paradoxical. True PAEs involve conditions for which TNF- $\alpha$  inhibitors are officially approved, while borderline PAEs occur without definitive approval but have sufficient evidence to suggest a link. Although these adverse events are rare, early identification of the responsible drug is crucial.

#### **Conclusion:**

Recognizing and managing the paradoxical adverse events associated with TNF- $\alpha$  inhibitors can prevent the progression of complications and irreversible side effects, underscoring the importance of careful monitoring and decision-making in clinical practice.

**/MPOSIUM** 

# Interest of Dermocosmetics as supportive care for skin disorders associated with chronic GVH

Anne-Laure Demessant-Flavigny<sup>1</sup>, Caroline Lefloch<sup>1</sup>, Delphine Kerob<sup>2</sup>

<sup>1</sup>La Roche-Posay International, Scientific Communication Director, Levallois Perret, France <sup>2</sup>La Roche-Posay International, Scientific Director,, Levallois Perret, France

# Introduction & Objectives:

Graft-versus-host disease (GVHD) occurs when the healthy stem cells of the graft (the donor) attack the cells of the host (the recipient). Chronic GvHD is a fairly common complication (30% of cases) of hematopoietic stem cell transplantation. Symptoms of GVHD can affect any organ, especially the skin, causing dryness, rash, itching or scaling.

## Materials & Methods:

The aim was to evaluate the 7-day efficacy of a dermocosmetic [Emollient 'Plus' containing Vitreoscilla filiformis, microresyl and shea butter] as supportive care for skin disorders. Patients were recruited from 2 centers in Paris: Hôpital Saint Antoine with 32 patients (76.2%) and Hôpital Saint Louis with 10 patients (23.8%). Their relatives and healthcare professionals were asked to complete a questionnaire on day zero and day 7. The product was made available to them

#### **Results:**

Of the 42 patients recruited, 41 completed the 7-day questionnaire for a response rate of 97.6%. The mean age at enrolment was 53.02 years. The gender distribution was comparable [47.6% males and 50% females]. With regard to dry body parts, the feet (38.1%), head (19%) and hands (14.3%) were the most frequently affected areas. Other sites included forearms (7.1%), pelvis (4.8%), nose (4.8%), neck (9.5%), lips (4.8%), elbows (7.1%), arms (11.9%), chest (4.8%) and stomach (7.1%).

Unpleasant sensations (tightness, pain, burning, pruritus) showed significant variation with specific percentages of improvement for each symptom. After 7 days, tightness had decreased by 10.10% and pain by 17.07%. Burning improved slightly by 2.44%, while pruritus decreased significantly by 68.75%. With regard to desquamation, the results were as follows: improvement:14 patients (33.3%), status quo: 22 patients (52;4%) and .worsening 5 patients (11.9%), Evaluation of erythema symptoms on day 7 showed various percentages of improvement in 9 patients (21.4%) , status quo in 26 patients (61.9%), and deterioration in 7 patients (16.7%).

Healthcare professionals rated the tolerability of the product over the entire period of use as excellent in 74.29% of patients, good in 22.86%, fair in 2.86%, with no poor ratings. In terms of overall satisfaction, 65.71% of healthcare professionals found the product very satisfactory, 22.86% satisfactory and 11.43% not very satisfactory, with no feedback of overall dissatisfaction.

Use of the product was considered very easy by 51.35% of patients and fairly easy by 45.95%. The majority also reported that the product was absorbed quickly (81.08%) and did not stick (86.49%). In addition, 59.46% of patients reported that their skin was very soothed after application of the product and 40.54% described their skin as soothed.

#### **Conclusion:**

The results of our evaluation show a marked improvement in skin symptoms associated with chronic GVH, including a significant reduction in pruritus (68.75%) and tightness (10.10%) after only 7 days of application. Tolerance and satisfaction among healthcare professionals and patients was high, with application perceived as easy and with a marked soothing effect. These data confirm the efficacy of this Emollient 'plus' dermocosmetic as a supportive care product with

the potential to improve patients' quality of life.

## Atezolizumab-induced psoriasiform skin lesions in a patient with metastatic lung cancer - a case report

Vilma Grbas<sup>\*1, 2</sup>, Gaia Bellesi<sup>1</sup>, Larisa Prpić Massari<sup>1, 2</sup>

SYMPOSIUM

<sup>1</sup>Clinical Hospital Center Rijeka, Department of Dermatovenereology, Rijeka, Croatia <sup>2</sup>Faculty of Medicine, Rijeka, Croatia

# Introduction & Objectives:

Psoriasiform drug eruptions represent a group of skin conditions that mimic the clinical and histological features of psoriasis, a prevalent immune-mediated inflammatory disorder. The use of humanised monoclonal antibodies targeting programmed cell death protein 1 (PD-1) and its ligand (PD-L1) as immune checkpoint inhibitors (ICPi) has rapidly gained traction as an effective carcinoma treatment. These agents function by activating cytotoxic CD4+/CD8+ T cells, thereby promoting the destruction of cancer cells. However, this mechanism also gives rise to distinct immunologic adverse events (irAEs) specific to these therapies. Among these, cutaneous reactions are the most commonly observed irAEs. Cutaneous irAEs induced by ICPi therapies exhibit a broad spectrum, ranging from non-specific rashes to more discernible dermatological manifestations. While many of these reactions are self-limiting and present with manageable levels of skin toxicity, some may lead to severe, potentially life-threatening complications.

Atezolizumab, an anti-PD-L1 monoclonal antibody, has been implicated in the development of psoriasiform eruption as an immune-related cutaneous adverse event (ircAE), although there are currently no comprehensive statistics on its incidence and prevalence. Notably, this phenomenon has been reported more frequently in patients with a history of pre-existing psoriasis. We report a case of psoriasiform drug reaction induced by atezolizumab in a patient with metastatic lung cancer without pre-existing psoriasis.

#### Materials & Methods - case report:

A woman in her 7th decade presented to a dermatologist with erythematosquamous papules and plaques affecting the elbows, forearms, and groins. Within a month, the lesions had disseminated to other areas, including the scalp. Several years earlier the patient was examined by pulmonologist because of the hemoptysis and digital clubbing. A computed tomography (CT) scan revealed a centrally located mass in the middle lobe of the right lung, and upon a biopsy of the lesion diagnosis of lung adenocarcinoma was confirmed, with biomarkers testing negative. Subsequent positron emission tomography-computed tomography (PET-CT) identified mediastinal infiltration and multiple liver lesions of uncertain etiology so the patient underwent treatment with four cycles of chemotherapy comprising cisplatin and pemetrexed, followed by radical radiotherapy. Several months after completing treatment, the patient developed left-sided weakness. A brain CT scan revealed a mass in the right occipital region, which was confirmed as metastasis. The lesion was surgically resected, followed by stereotactic ablation. Due to disease progression, treatment with atezolizumab was initiated.

#### **Results:**

Nine months later, the patient developed aforementioned skin lesions. A biopsy and histopathological evaluation confirmed the diagnosis of psoriasiform drug eruption. The patient was treated with topical corticosteroids, salicylic acid and calcipotriol, which resulted in mild improvement. However, following the discontinuation of atezolizumab, gradual regression of the skin changes was observed.

## **Conclusion:**

Although uncommon, it is important for physicians to cognize a potential for atezolizumab and other immunotherapeutics to induce psoriasiform skin lesions, especially in individuals without a prior history of psoriasis.

YMPOSIUM

# Rosacea-like folliculitis associated with tralokinumab therapy: a diagnostic challenge

Sergio García-González<sup>1</sup>, Sara Pilar Martínez Cisneros<sup>1</sup>, José González Fernández<sup>1</sup>, Paula Soto Revuelta<sup>1</sup>, Lydia Corbalan Escortell<sup>1</sup>, Karol Sabas Ortega<sup>1</sup>, José Asensio Gómez<sup>1</sup>, Javier Soro Miranda<sup>1</sup>, Lucía Prieto Torres<sup>1</sup>, Mariano Ara Martín<sup>1</sup>

<sup>1</sup>Hospital Clínico Universitario Lozano Blesa , Dermatology, Zaragoza, Spain

# Introduction & Objectives:

Atopic dermatitis (AD) is a chronic inflammatory skin disease characterized by pruritus, eczematous lesions and lichenification. During the last years new drugs, including biological agents, have been launched and it has changed completely the therapeutic scenario of the disease.

We present a 35-years-old female with medical history of AD who experienced severe AD outbreaks since 2010.

## **Results:**

At the beginning, she was treated with topical corticosteroids and calcineurin inhibitors, without any significant improvement. Then, azatioprine was prescribed at 50mg/day with good response. However, it was discontinued due to the patient's gestational desire. Eight months later, the patient suffered an important AD outbreak. Topical corticosteroids and calcineurin inhibitors were started, without any change. Cyclosporine was prescribed at 300 mg/day and it led to initial improvement, but the patient was pregnant and suffered from severe edemas on extremities and on the face, so the drug was stopped.

One year later, the patient worsened, reaching an Investigator Global Assessment (IGA) score of 3, an Eczema Area Severity Index (EASI) of 25 and a Body Surface Affected of 30%. Due to the worsening of her dermatitis, tralokinumab was prescribed. After that, EASI 0 was achieved, with a significant decrease in pruritus (IGA 0). Four weeks after the beginning of tralokinumab, the patient started with a papulopustular eruption on the face, located on the mandibular and chin areas. The lesions appeared as papules that tended to form yellowish crusts. She was treated with doxycycline 100mg per day and PCR samples were taken for varicella zoster virus, herpes simplex virus 1 and herpes simplex virus 2, as well as swabs for bacterial and fungal cultures. All samples were negative, and a complete remission was achieved after one month with oral doxycycline.

## **Conclusion:**

Rosacea is a chronic inflammatory dermatosis mainly affecting the face with 4 clinical subtypes. Multiple factors have been involved in its pathogenesis, including environmental changes, immune dysregulation and increased density of demodex, which has been associated with an increased release of IL-17 that could play a role in this skin disorder2, 3.

Tralokinumab is a fully human IgG4 monoclonal antibody that blocks the binding of IL-13 to two receptors, avoiding the activation of the signaling cascade involved in AD. This drug is usually well-tolerated, with high effectiveness1, 4.

Among its most frequent adverse events are headaches, conjunctivitis, injection site reactions, upper respiratory tract infections4 and "red face"5, with no cases of rosacea-like folliculitis reported so far. However, it has been previously described after the use of dupilumab2,3,6. These patients presented with a new-onset rosacea-like folliculitis characterized by erythema, flushes and papulopustules in the centrofacial area2,3,6. Moreover, it was demostrated an increased number of demodex per follicle3,6. Some authors have postulated that the immune dysregulation with alteration of Th1/Th2 balance through Th2 blockade could explain the development of this rosacea-like eruption2, 6.

On the whole, the exact mechanism leading to these reactions is not fully understand, and further investigations will be

necessary to elucidate the role of Th2 and IL-13 inhibition in the development of rosacea-like folliculitis, as well as the best way of managing this new side effect.

# The ocean's hidden threats : Acute Localised Exanthematous Pustulosis Induced by a Jellyfish Sting

Balsam Saadaoui<sup>1</sup>, Nesrine Ben Salah<sup>1</sup>, Houda Raies<sup>1</sup>, Korbi Mouna<sup>1</sup>, Hichem Bel Haj Ali<sup>1</sup>, Zili Jameleddine<sup>1</sup>

 $^1$ مستشفى فطومة بورقيبة بالمنستير, Monastir, Tunisia

MPOSIUM

#### Introduction & Objectives:

Acute localised exanthematous pustulosis (ALEP), a rare drug reaction characterized by the abrupt onset of multiple, localized nonfollicular, pinhead-sized, and sterile pustules over an erythematous and edematous background. We present an unusual case of ALEP induced by a jellyfish sting.

2025

#### **Materials & Methods:**

NA

#### **Results:**

A 6-year-old girl, with no medical history, presented with a 2-day history of erythema and perioral pustules. The mother denied any history of medications or contact with potential allergens. The eruption began 36 hours after a sting by a jellyfish (*Rhizostoma pulmo*) on the perioral area during a swim in the Mediterranean Sea. On physical examination, the patient had multiple small, confluent, non-follicular pustules on an underlying erythematous and edematous base involving the perioral skin. There were no vesicles, blisters, itching, or mucosal lesions. Laboratory findings were normal, and no bacterial growth was detected in a culture of a pustular specimen. The patient was treated with a highly potent steroid, betamethasone dipropionate 0.05% topical cream, applied once daily. The skin lesions resolved within 4 days with no recurrences. Based on the clinical history, skin presentation, and chronological correlation, the patient was diagnosed with ALEP induced by a jellyfish sting.

## **Conclusion:**

ALEP is characterized by the sudden onset of numerous small, non-follicular, sterile pustules on an erythematous and edematous base. Due to clinical and histopathological similarities, ALEP and AGEP are considered to be part of the same spectrum. The diagnosis of ALEP in our patient was considered based on the proposed criteria for ALEP, in accordance with the EuroSCAR guidelines.

Although the pathophysiology of ALEP is not fully understood, it appears to involve a drug-specific T-cell-mediated process similar to AGEP. It is triggered by a specific immune response involving CD4 and CD8 cells which leads to increased production of interleukin (IL)-8 by T cells and keratinocytes and granulocyte-macrophage colony-stimulating factor (GM-CSF). These cytokines may contribute to the neutrophil accumulation and sterile pustule formation seen in ALEP. *Rhizostoma pulmo* is a large jellyfish species found in the Mediterranean and Atlantic Oceans, characterized by its bell-shaped, translucent exumbrella and extensive oral arms. Jellyfish stings are known to induce immediate or delayed allergic skin reactions. The nematocyst constituents in jellyfish can trigger both innate and adaptive immune responses. A case of AGEP induced by this jellyfish has been reported by Korbi et al.

We believe that ALEP induced by jellyfish stings occurs via a similar mechanism.





# hydroxyurea induced chronic ulcer

Farouk Elguennouni<sup>\*1, 2</sup>, Tarik Hanafi<sup>1</sup>, Jawad Azhari<sup>1</sup>, Mohamed El Amraoui<sup>1</sup>, Youssef Zemmez<sup>1</sup>, Rachid Frikh<sup>1</sup>, Naoufal Hjira<sup>1</sup>

<sup>1</sup>Hopital militaire d'instruction mohammed v , Rabat <sup>2</sup>faculty of medecine and pharmacy , Rabat

# Introduction & Objectives:

Hydroxyurea (HU), a mainstay in managing essential thrombocythemia (ET), is associated with rare but severe dermatological complications, including chronic ulcers. These ulcers often mimic other etiologies (e.g., vascular, infectious) and are resistant to conventional therapies, leading to diagnostic delays. This case report aims to highlight HU-induced ulcers as a critical differential diagnosis in ET patients with non-healing wounds, outline the diagnostic workflow to exclude common causes, and emphasize timely intervention through drug discontinuation and multidisciplinary care to improve outcomes.

# Materials & Methods:

A 70-year-old male with ET, on HU (500 mg/day) for three years, presented with bilateral lower limb ulcers persisting for 12 months despite antibiotics and wound care. Clinical evaluation included:

History: No trauma, diabetes, or vascular disease. Physical examination: Irregular, necrotic ulcers on heels and submalleolar regions. Diagnostic tests: Doppler ultrasound (ruled out arterial/venous insufficiency), autoimmune serology (excluded vasculitis), and skin biopsy (nonspecific chronic inflammation, no malignancy). Intervention: HU was discontinued and replaced with interferon-alpha. Wound management included hydrocolloid dressings, debridement, and monitoring.

# **Results:**

Diagnostic workup confirmed no vascular, infectious, or autoimmune etiology. Histopathology supported drug-induced inflammation, correlating with HU use. Post-HU discontinuation, ulcers showed progressive granulation within three months, with complete healing at six-month follow-up. No recurrence occurred, affirming HU as the causative agent.

# **Conclusion:**

This case underscores key clinical insights:

Diagnostic Vigilance: HU-induced ulcers should be suspected in ET patients with refractory wounds, particularly after excluding vascular, diabetic, and autoimmune causes. Therapeutic Action: Immediate HU discontinuation and transition to alternatives (e.g., interferon-alpha) are critical. Adjunct wound care (debridement, hydrocolloid dressings) accelerates healing.

Multidisciplinary Collaboration: Coordination between hematologists, dermatologists, and wound specialists optimizes management. HU's ulcerogenic mechanism—potentially involving impaired tissue repair—remains unclear, warranting further research. Clinicians must recognize this complication early to mitigate morbidity. Proactive patient education on ulcer monitoring and prompt reporting is essential for improving long-term outcomes in HU-treated individuals.





# Massive epidermal cleavage - not always Toxic Epidermal Necrolysis: Case report of Acute toxic epidermal necrolysis - like cutaneous lupus erythematosus

Andraž Jahič<sup>1</sup>, Ana Gale<sup>1</sup>, Maja Mastnak<sup>1</sup>, Olga Tockova<sup>1</sup>

<sup>1</sup>Dermatovenerology clinic, University clinical centre Ljubljana, Ljubljana, Slovenia

# Introduction & Objectives:

Acute syndrome of apoptotic pan-epidermolysis (ASAP) is characterized by massive epidermal cleavage. Its most common presentation, toxic epidermal necrolysis is drug induced, but similar skin damage pattern can be seen in other settings. Toxic epidermal necrolysis-like acute cutaneous lupus erythematosus is an extremely rare clinical presentation of the ASAP, with less than 100 reported cases. It shares clinical and histological properties of toxic epidermal necrolysis (TEN) and acute cutaneous lupus erythematosus (ACLE). Cutaneous lesions appear in photo-distributive pattern, rather than diffuse and mucous membranes are mostly spared.

# Materials & Methods:

Case report.

# **Results:**

69-year old female presented with erythematous exanthema with papules, plaques and bullae, with evident epidermolysis on dorsolateral parts of both upper extremities. First skin changes appeared on cleaveage area after intense sunbathing. In weeks, skin changes progressed to upper extremities, back, chest and legs, with estimated 60% of body surface area affected. Areas protected from sun exposure, mucous membranes, feet and hands were not affected at all. She had not used any new medications during or before the appeareance of the symptoms. Clinical picture was suspicious for TEN, but lack of newly introduced medications and no mucosal involvment widened differential diagnosis. Phototoxic, allergic and eczematous dermatitis, as well as bullous systemic lupus erythematosus were considered. Immunoserology showed elevated ANA titer 1:320 with speckled pattern, elevated Ro and La antibodies, but negative anti-dsDNA-CLIFT. Urine and blood work did not show any signs of systemic lupus erythematosus. Histopathology revealed necrosis of epidermis, formations of subepidermal bullae and interface dermatitis. Alcian blue staining did not show elevated mucine production in the dermis. Direct immunofluorescence report was insignificant. The patient was treated with systemic methylprednisolone, and systemic antimalarics - hydroxychloroquine, topically we applied corticosteroids. Interestingly, immediately after initiating topical and systemic therapy, regression of skin changes and reepithelization with no new development of the disease was observed. The patient was discharged after less than three weeks with no serious complications. On follow up after one month, complete remission of the disease was observed with light erythema still visible at the affected sites.

# **Conclusion:**

In case of epidermal necrolysis and absence of newly introduced drugs, other syndromes ASAP should be considered. In our case, lack of newly introduced drugs, photo distributive pattern, lack of mucosal involvment and especially immediate response to corticosteroids speak against TEN. Histopathology and immunoserology combined with clinical picture and response to therapy enabled us to make the rare clinical diagnosis of TEN-like ACLE.





# Localized Morphea Following COVID-19 Vaccination: A Case Study

Fatine Soulami<sup>1</sup>

<sup>1</sup>Morocco, dermatology, tangier, Morocco

#### Introduction

Morphea, also known as localized scleroderma, is a rare autoimmune disease characterized by the formation of thick, hard skin plaques. Recent cases have highlighted the development of localized morphea at the vaccine injection site following COVID-19 vaccinations, raising concerns about a possible association between vaccination and the onset of autoimmune disorders. This article presents a clinical case to explore this issue and its implications for public health.

## **Materials and Methods**

We conducted an observational study on a clinical case of localized morphea following COVID-19 vaccination. The patient was assessed using various diagnostic tools, including a comprehensive clinical examination, laboratory tests, and a skin biopsy. Informed consent was obtained from the patient for data collection and publication for scientific purposes.

#### Results

We followed a 62-year-old female patient with a history of hypothyroidism treated with levothyroxine and atrial fibrillation managed with anticoagulants. She presented with an erythematous sclerotic lesion on the anterolateral surface of her left arm, which appeared two weeks after receiving her second dose of the Pfizer-BioNTech COVID-19 vaccine, administered three years prior. The patient had no personal or family history of autoimmune or dermatological diseases. Clinical examination revealed a hyperpigmented and sclerosed plaque with a pearly-white center.

Biological tests, including autoimmune screenings, lumbar puncture, electromyogram, and brain and spinal MRIs, showed no abnormalities. A skin biopsy revealed an atrophic epidermis with orthokeratotic hyperkeratosis and a loose fibrous band under the epithelium. The superficial dermis displayed a mild inflammatory infiltrate, while the middle dermis was thickened with collagen bundles, supporting the diagnosis of morphea.

#### Discussion

The diagnosis of localized post-vaccination morphea was established. Treatment included emollients, topical corticosteroids, and calcipotriol. However, the mechanism behind this manifestation remains unclear: is it an autoimmune reaction triggered by the vaccine or the result of iatrogenic trauma from the injection? Approximately 15% of morphea cases are associated with a prior traumatic factor, and some observations suggest drug reactions at the injection site.

Few cases of post-vaccination morphea have been reported in the literature, highlighting the need for increased surveillance and further studies to better understand these rare events.

#### Conclusion

This clinical case of localized morphea following COVID-19 vaccination sheds light on an inadequately understood phenomenon and underscores the importance of heightened vigilance regarding skin manifestations post-vaccination. A better understanding of the underlying mechanisms could help clarify potential risks associated with vaccines, while preserving their crucial role in combating the pandemic.







# Overlap between toxic epidermal necrolysis and generalized exanthematous pustulosis secondary to hydroxychloroquine

Billel Merrouche\*<sup>1</sup>, Qaid Ali Kazman<sup>1</sup>, Fella Laissaoui<sup>1</sup>, Houria Sahel<sup>1, 2</sup>

<sup>1</sup>University Hospital Center Lamine Debaghine, Department of Dermatology, Bab El Oued, Algiers, Algeria <sup>2</sup>Faculty of Medicine, University of Algiers 1, Algiers, Algeria

# Introduction:

Toxic epidermal necrolysis (TEN) and Acute generalized exanthematous pustulosis (AGEP) are two uncommon and severe toxidermias which may share certain features. We report the case of a patient who presented with an overlapping TEN-AGEP induced by hydroxychloroquine.

## **Case presentation:**

A 53-year-old woman with a history of type 2 diabetes, chronic lithiasis nephropathy and pulmonary sarcoidosis presented with an acute erythematous pustular eruption that appeared 3 weeks after initiation of treatment with hydroxychloroquine 400 mg/day, prescribed for diffuse arthralgias. Examination revealed a generalised maculopapular rash dotted with non-follicular pustules with superficial skin detachment covering more than 30% of the body surface. Nikolsky's sign was positive. The mucous membranes were unaffected. There were no peripheral adenopathies. Laboratory tests showed hyperleukocytosis (1900/mm3) with neutrophil predominance, and a C-reactive protein of 315 mg/L. Blood cultures and viral serologies were negative. Urinary tests showed urinary infection with detection of Escherichia coli. The patient was treated with corticosteroids (1mg/kg/day) and antibiotics with discontinuation of hydroxychloroquine. Resolution of the clinical and laboratory abnormalities was achieved within 20 days.

#### **Discussion:**

TEN and AGEP are classified as severe drug reactions that can be life-threatening. Each has its own characteristic clinical manifestations, specific pathogenesis and histopathology. However, the distinction between these two entities can be challenging in certain situations, raising the hypothesis of an overlap syndrome.

In the case of our patient, the extensive detachment indicates TEN, while the pustular presentation is suggestive of AGEP. There was a relatively long delay (3 weeks) between the eruption and the initiation of hydroxychloroquine. This notion of late induction is often found in overlapping cases.

Several observations of toxidermia with a mixed phenotype TEN-AGEP have been described in the literature. Hydroxychloroquine was implicated in a few cases.

#### **Conclusion:**

Our observation describes an exceptional case of TEN-AGEP overlap attributed to hydroxychloroquine. It highlights the importance of recognising these forms, which are more severe than classic toxidermia.





## A Closer Look at the Dermatological Profile of GLP-1 Agonists

Calista Persson\*<sup>1</sup>, Allison Eaton<sup>1</sup>, Harvey Mayrovitz<sup>1</sup>

<sup>1</sup>Nova Southeastern University, College of Osteopathic Medicine, Davie, United States

#### Introduction & Objectives:

Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) are widely utilized for the management of type 2 diabetes mellitus (T2DM) and obesity, offering substantial benefits in glycemic control and weight reduction. While their gastrointestinal and cardiovascular effects are well-characterized, emerging evidence suggests a range of dermatological effects associated with these therapies. These include both adverse skin reactions and potential therapeutic benefits in chronic inflammatory skin diseases. However, the full extent of their dermatological implications remains incompletely understood.

This systematic review aims to evaluate the dermatological effects of GLP-1 RAs, including their association with adverse skin reactions and their potential role in modulating inflammatory skin diseases. Specifically, we examine their impact on hypersensitivity responses, injection site reactions, rash, angioedema, and rare immune-mediated conditions, as well as their effects on inflammatory dermatoses such as psoriasis and hidradenitis suppurativa. Additionally, we explore underlying mechanisms involving immune modulation, metabolic changes, and weight loss.

#### **Materials & Methods:**

A comprehensive literature search was conducted across EMBASE, PubMed, and Web of Science to identify studies published between 2014 and 2025. Inclusion criteria encompassed original studies, clinical trials, and case reports examining the dermatological effects of GLP-1 RAs in human subjects. Opinion pieces were excluded. Data extraction focused on reported skin-related effects, including both adverse reactions and potential therapeutic benefits.

#### **Results:**

The search yielded 60 studies meeting the inclusion criteria. Reports suggest that GLP-1 RAs may exert anti-inflammatory effects beneficial for psoriasis, potentially through pathways involving cytokine modulation and metabolic improvements. However, their relationship with hidradenitis suppurativa remains less defined, with mixed reports of both improvement and exacerbation. Additionally, GLP-1 RAs have been linked to adverse dermatological events, including urticaria, angioedema, pruritus, and rare immune-mediated conditions. While case reports highlight serious but uncommon cutaneous side effects, large-scale studies on their broader dermatological impact remain limited.

# **Conclusion:**

GLP-1 RAs exhibit both beneficial and adverse dermatological effects, influencing inflammatory skin diseases and cutaneous reactions through immune modulation and metabolic pathways. Understanding these outcomes is crucial for optimizing patient care, managing side effects, and leveraging potential therapeutic benefits. Further research is needed to clarify the long-term dermatological impact of GLP-1 RAs and their role in inflammatory skin conditions, with controlled trials necessary to establish their safety and efficacy in dermatology.





# Generalized Pustular Psoriasis in a patient treated with Pembrolizumab

Dimitrios Alexandris<sup>\*1</sup>, Maria Zoumpiadou<sup>2</sup>, Leonidas Marinos<sup>3</sup>, Edison Jahaj<sup>2</sup>, Nektarios Alevizopoulos<sup>1</sup>

<sup>1</sup>Evangelismos General Hospital, Oncology, Athens, Greece
<sup>2</sup>Evangelismos General Hospital, Dermatology, Athens, Greece
<sup>3</sup>Evangelismos General Hospital, Hematopathology, Athens, Greece

# Introduction & Objectives:

Immune checkpoint inhibitors (ICIs) are a distinct class of anticancer therapies that stimulate the body's immune system to target and eliminate malignant cells. These treatments may lead to immune-related adverse events, with cutaneous manifestations being the most prominent. The most common immune-related skin toxicities include pruritus, maculopapular rash, psoriasis, and leukoderma. Herein, we present a unique case of generalized pustular psoriasis (GPP) that occurred following the administration of pembrolizumab.

# Materials & Methods:

A 70-year-old male with a history of mild psoriasis, previously controlled with topical treatments, was initiated on pembrolizumab therapy for metastatic squamous cell lung carcinoma. After the first infusion, the patient developed severe pruritus and erythematous desquamative plaques over his body, which were initially managed with topical therapy.

However, following the third infusion, the patient's clinical condition worsened. The pruritus remained unresponsive to treatment, and he reported new-onset xerophthalmia and conjunctival redness. Additionally, systemic symptoms, including fever and malaise, prompted hospital admission. On examination, the patient presented with painful, diffuse erythematous plaques and pustules covering his entire body surface. Laboratory findings were unremarkable, and no internal organ involvement was detected.

Pembrolizumab was discontinued, and a punch biopsy of the affected skin revealed intraepidermal pustules and psoriasiform infiltrates, which confirmed diagnosis of GPP. A Naranjo Adverse Drug Reaction Probability Scale score of 7 suggested pembrolizumab as the probable cause of the eruption, with no other concomitant medications implicated.

# **Results:**

The patient was treated with oral methotrexate, topical corticosteroids, and emollients, leading to marked improvement in his skin condition. Interestingly, follow-up computed tomography scans demonstrated a partial response to the underlying malignancy. However, re-administration of pembrolizumab was not attempted and the patient was transitioned to alternative chemotherapy regimens.

# **Conclusion:**

This case highlights a rare and significant occurrence of GPP in a patient receiving pembrolizumab for metastatic nonsmall cell lung cancer. GPP is a severe form of psoriasis characterized by the presence of 2-3 mm sterile pustules, located at the margins of growing erythematous skin or atop erythematous plaques, often accompanied by sepsis-like systemic symptoms and ocular manifestations

Management of GPP necessitates a multidisciplinary approach, requiring systemic treatments in conjunction with topical therapies. Timely identification and intervention are critical to preserve quality of life and ensure continued benefit from cancer therapies.

**MPOSIUM** 

# Epidemiology and clinical profile of Lamotrigine-induced cutaneous adverse reactions: insights from a 15-patient study

Soukaina Lazouzi<sup>1</sup>, Hali Fouzia<sup>1</sup>, Vigniak Roussaint Dossou-Yovo<sup>2</sup>, Bouchra Baghad<sup>1</sup>, Imane Rahmoune<sup>2</sup>, Houda Filal<sup>2</sup>, Soumia Chiheb<sup>1</sup>

<sup>1</sup>University Hospital Center Ibn Rochd - Casablanca, Dermatology and venereology, Casablanca <sup>2</sup>University Hospital Center Ibn Rochd - Casablanca, Pharmacology, Casablanca

## Introduction & Objectives:

Lamotrigine is a second-generation anti-epileptic commonly prescribed for epileptic and bipolar disorders, but frequently associated with severe skin reactions. The aim of our study was to draw up an epidemiological and clinical profile and, potentially, raise awareness as to its use.

#### Materials & Methods:

We conducted a single-centre retrospective study over a 6-year period, from January 2019 to January 2025, including all notified cases of lamotrigine induced adverse skin reactions. Patient characteristics, circumstances of use and prescription, and occurrence details were collected from the patients' medical records and recorded in a standardised data file.

#### **Results:**

The study included 15 patients out of 107 cases of drug-induced skin toxicity, with a median age of 27 years (8 to 64 years) and a male/female sex ratio of 2/13. Lamotrigine was the main cause in 11 cases (73.3%), prescribed for neurological disorders in 12 cases (80%), psychiatric disorders in 2 cases (13.3%) and neurosurgical disorders in 1 case. Severe toxidermia occurred in 14 cases (DRESS syndrome in 8 (53.3%), Stevens-Johnson syndrome (SJS) in 3 (20%), SJS/Lyell overlap in 2 (13.3%), Lyell syndrome in 1, and maculopapular exanthema in 1 case. The median time to onset was 20 days (7-60 days), and the median length of hospitalisation 7 days (0-24). Prescription modalities were not complied with in 10 cases (66.7%), including inappropriate initial dosage in 8 cases (80%) and non-compliance with the escalation schedule in 2 cases (20%). A combination with sodium valproate was noted in 4 cases (26.7%). One patient was admitted to intensive care, 6 retained scarring macules, and all had a favourable final outcome.

## **Conclusion:**

Lamotrigine is an effective drug in a number of neuro-psychiatric indications, but is also a source of numerous sideeffects. Among these, toxidermia, particularly DRESS and epidermal necrolysis (Stevens-johnson and Lyell syndromes, Stevens-johnson-Lyell overlap), are potentially fatal and our work highlights the involvement of non-compliance with prescribing procedures in their occurrence.

Indeed, two-thirds of the patients included in our study had an initial dosage that was too high or a therapeutic escalation schedule that was too quick, while guidelines insist on the need for gradual initiation and increase of treatment.

Although the majority of patients had a favourable final outcome, the physical, psychological and financial impact could be significant, further underlining the seriousness of the condition and the need to adhere to prescribing guidelines.

Lamotrigine toxidermia is common, but potentially at least partially preventable. The findings of this study should be highlighted and awareness raised in an attempt to limit the consequences.







## Bullous pemphigoid induced by angiotensin-converting enzyme inhibitors: A Rare manifestation to be aware of

2025

Aicha Cheab\*<sup>1</sup>, Hind Majdoul<sup>1</sup>, Hali Fouzia<sup>1</sup>, Soumiya Chiheb<sup>1</sup>

<sup>1</sup>Ibn Rochd University Hospital, Dermatology and venereology department, Casablanca, Morocco

## Introduction & Objectives:

Bullous pemphigoid (BP) is an autoimmune subepidermal blistering disorder predominantly affecting the elderly. Although most cases are idiopathic, drug-induced BP has been increasingly reported. We report a case of BP induced by an angiotensin-converting enzyme (ACE) inhibitor.

# Materials & Methods:

**Results:** 

# **Case presentation:**

An 84-year-old male patient, with a history of ischemic stroke 2 years ago known to be hypertensive, initially treated with beta-blockers alone with adjunction of an ACE inhibitor 8 months ago, presented to our department for a pruritic generalized bullous eruption evolving in a context of declining general condition. Clinical examination revealed large, tense blisters with diffuse distribution, resting on an urticarial base, with mucosal involvement of the mouth and a negative Nikolsky sign. A skin biopsy confirmed the diagnosis of bullous pemphigoid. Indirect immunofluorescence showed high titers of anti-basement membrane antibodies (1/1280). The patient was treated with oral corticosteroids at a dose of 0.5 mg/kg/day. Given both the partial remission and the delay between the onset of symptoms and the initiation of ACE inhibitor therapy, a drug-induced etiology was strongly suspected. This hypothesis was further supported by a pharmacovigilance report, which assigned an imputability score of I2B4, indicating ACE inhibitor-induced bullous pemphigoid. After consulting with cardiologists, the ACE inhibitor was substituted with a calcium channel blocker, with strict blood pressure monitoring. Two weeks later, the patient showed significant improvement, with near-total regression of the skin lesions.

# **Conclusion:**

Bullous pemphigoid (BP) induced by angiotensin-converting enzyme (ACE) inhibitors remains rare, although its frequency in the medical literature has increased in recent decades, likely due to the widespread use of ACE inhibitors. In druginduced BP, the clinical presentation is often more severe, with a higher incidence of mucosal involvement, which can complicate management. The histological and immunopathological features are identical to those of the idiopathic form, including subepidermal blistering, the presence of eosinophils, and positive direct immunofluorescence for anti-basement membrane antibodies. Early intervention with corticosteroids or immunosuppressive therapy is essential to manage the condition and prevent severe complications, such as infection or prolonged disability. Therefore, heightened awareness of this potential side effect is crucial, as it allows for better disease control and improved prognosis.





# Acute Generalized Exanthematous Pustulosis: Drug-Induced versus Other Causes

Fouad Mohamed Amine<sup>1</sup>, Nesrine Ben Salah<sup>1</sup>, Gamarra Mohamed Ali<sup>1</sup>, Korbi Mouna<sup>1</sup>, Mohamed Mariem<sup>1</sup>, Soua Yousra<sup>1</sup>, Youssef Monia<sup>1</sup>, Bel Hadj Ali Hichem<sup>1</sup>, Zili Jamel<sup>1</sup>

 $^1$ مستشفى فطومة بورقيبة بالمنستير, Dermatology Department, Monastir, Tunisia

## Introduction & Objectives:

Acute Generalized Exanthematous Pustulosis (AGEP) is a rare, severe cutaneous reaction characterized by a rapid onset of erythematous, edematous rashes with non-follicular pustules and fever. This study aims to investigate the epidemiological, clinical and etiological aspects of AGEP through a hospital-based case series.

## Materials & Methods:

A retrospective review was conducted of all AGEP cases diagnosed according to EUROSCAR criteria over a 23-year period (2000–2023). Epidemiological, clinical, biological, etiological, and outcome data were analyzed.

#### **Results:**

Sixteen cases of AGEP were identified, with an average age of 41 years (range 7–76 years), including three pediatric cases. The sex-ratio (M/F) was 0.75. All patients exhibited an erythematous-oedematous eruption with non-follicular pustules, most commonly on the trunk (93.7%), limbs (81.2%), and face (25%). Photo-distributed lesions occurred in one case (6.2%). The axillary, inguinal, and submammary folds were most frequently involved. Fever was present in all cases, with elevated C-reactive protein (CRP) and neutrophilic leukocytosis. One case complicated by acute renal failure was noted. Histopathological analysis of skin biopsies revealed spongiform pustules, necrotic keratinocytes, and superficial dermal oedema. Drug-induced AGEP was identified in 8 cases (50%), with causative agents including terbinafine, amoxicillin, rosuvastatin, gemcitabine, famotidine, and diltiazem. The average latency period between drug initiation and lesion onset was 5.25 days. One case was associated with mercury exposure, confirmed by elevated mercury levels and a positive patch test. Another case was linked to post-viral AGEP triggered by COVID-19. A unique recurrent AGEP case was attributed to occupational exposure to textile dyes, confirmed by patch tests. All patients were treated with topical corticosteroids and antihistamines, leading to full resolution of lesions within two weeks.

# **Conclusion:**

AGEP presents with a febrile, erythematous, pustular eruption, predominantly drug-induced, particularly by beta-lactam antibiotics and macrolides. The trunk and skin folds are most commonly affected. All patients in this study exhibited typical clinical and histopathological features. The latency period between the trigger and lesion onset is typically short, although it was longer in some of our cases. Over 90% of its cases are induced by systemic drugs. However, non-drug-related causes such as mercury exposure, allergens, or viral infections like COVID-19 can also occasionally trigger AGEP. Occupational exposure to textile dyes is exceptionally rare. This study reports the first documented case of AGEP induced by COVID-19 and a recurrent AGEP case linked to textile dye exposure, which has been classified as an occupational disease. The prognosis for AGEP is generally favorable, with lesions resolving within two weeks. Topical corticosteroids help reduce disease progression and hospital stay duration.





# Development of Multiple Hemangiomas in a Patient Treated with Ramucirumab: A Case Report

Maria Bakirtzi<sup>1</sup>

<sup>1</sup>department of dermatoncology Euromedica, Thessaloniki, Greece

**Introduction & Objectives:** Ramucirumab, a VEGFR2 antagonist, is a widely used angiogenesis inhibitor for malignancies such as gastric, colorectal, and lung cancer. While common cutaneous side effects include rash, pruritus, and alopecia, vascular tumors like hemangiomas are rare and not well-documented.

**Case Report** We describe a 66-year-old man with metastatic lung cancer diagnosed in 2022, initially treated with pembrolizumab until November 2023, when progression prompted a switch to ramucirumab. Six months after initiating ramucirumab, the patient developed multiple hemangiomas on the trunk and three red nodules on the left hand. Histopathological examination confirmed these to be capillary hemangiomas.

**Discussion:** Although vascular tumors are not recognized side effects of ramucirumab, paradoxical VEGFR2 activation has been reported in sporadic cases. Lim et al. described somatic VEGFR2 mutations in hemangiomas during ramucirumab therapy, while Kosymi et al. proposed a genetic predisposition linking VEGFR2 mutations with vascular tumorigenesis. These findings highlight the potential for paradoxical vascular responses in patients receiving VEGFR2 inhibitors.

**Conclusion:** This case underscores the need for vigilance in monitoring patients on ramucirumab for vascular tumors. Further research is necessary to elucidate the mechanisms underlying these paradoxical reactions.





# penicillin-induced dress syndrome : a case report and literature review

Farouk Elguennouni<sup>1, 2</sup>, Jawad Azhari<sup>1</sup>, Tarik Hanafi<sup>1</sup>, Mohamed El Amraoui<sup>1</sup>, Youssef Zemmez<sup>1</sup>, Rachid Frikh<sup>1</sup>, Naoufal Hjira<sup>1</sup>

<sup>1</sup>Mohammed V Military Training Hospital, dermatology venerology , Rabat <sup>2</sup>faculty of medecine and pharmacy , dermatology venerology , Rabat

# Introduction & Objectives:

DRESS syndrome (Drug Reaction with Eosinophilia and Systemic Symptoms) is a life-threatening hypersensitivity reaction with a mortality rate of 10%, characterized by multiorgan involvement and delayed onset after drug exposure. While anticonvulsants and antibiotics like sulfonamides are common triggers, penicillin-associated DRESS remains rare, accounting for <10% of cases. This case report aims to illustrate the diagnostic challenges of amoxicillin-induced DRESS, underscore the critical role of early recognition and drug discontinuation, and highlight penicillins as underrecognized culprits despite their widespread use.

## Materials & Methods:

A 71-year-old woman with no prior allergies or comorbidities developed DRESS syndrome four weeks after completing a 14-day course of amoxicillin (50 mg/kg/day) for postoperative femoral hernia repair. Clinical evaluation included:

History: Delayed-onset fever (39°C), lymphadenopathy, and dysphagia. Examination: Facial edema, erosive cheilitis, scarlatiniform rash (>60% BSA), violaceous plaques, and erythrodermic desquamation. Laboratory tests: Eosinophilia (2300 cells/mm<sup>3</sup>), hepatic cytolysis (ALT/AST 4× ULN), elevated CRP (164 mg/L), and exclusion of infectious/malignant etiologies. Diagnostic criteria: RegiSCAR score >5 confirmed DRESS. Skin biopsy ruled out mycosis fungoides and Sézary syndrome. Intervention: Immediate amoxicillin discontinuation and intravenous methylprednisolone (1 mg/kg/day).

#### **Results:**

Clinical and laboratory findings aligned with DRESS syndrome: Timing: Symptom onset 28 days post-antibiotic initiation, consistent with delayed hypersensitivity. Multiorgan involvement: Cutaneous (rash, erythroderma), hepatic (cytolysis), and hematologic (eosinophilia). Therapeutic response: Corticosteroids led to resolution of fever, rash, and eosinophilia within three weeks. Hepatic enzymes normalized by six-week follow-up.

# **Conclusion:**

This case highlights four critical insights: Diagnostic Vigilance: DRESS should be suspected in patients with delayed-onset rash, eosinophilia, and systemic symptoms following penicillin exposure, even weeks post-treatment. Penicillin Risk: Though rare, amoxicillin can provoke DRESS, necessitating heightened awareness given its frequent prescription. Urgent Management: Immediate drug cessation and systemic corticosteroids reduce mortality risk. RegiSCAR Utility: This scoring system is indispensable for timely diagnosis, particularly in atypical presentations. Despite its rarity, penicillin-induced DRESS carries significant morbidity, emphasizing the need for clinician education and patient counseling on antibiotic-related hypersensitivity. Further studies are warranted to elucidate genetic or immunological predispositions and refine treatment protocols





# Study of the total indicators of the amino acid spectrum of blood in patients with a favorable course of toxic epidermal necrolysis.

Nataly Ivanyushko-Nasarko<sup>1</sup>, Svitlana Volbyn<sup>1</sup>, Tetyana Rudnyk<sup>1</sup>, Solomiya Turkevich<sup>1</sup>

<sup>1</sup>Danylo Halytsky Lviv National Medical University, Dermatology, venereology, Lviv, Ukraine

**Introduction & Objectives:** Toxic epidermal necrolysis (TEN), as one of the life-threatening conditions for the patient, requires a comprehensive study. Due to the increased reactivity of the body to certain drugs, the occurrence of this disease in different groups of the population is increasing. This disease affects not only the skin, but also internal organs and systems. The mortality rate is, according to various authors, up to 40% and more in all cases and requires the search for new methods of correction.

**Purpose** The purpose of our study was to analyze the total indicators of the amino acid spectrum of blood serum in patients with TEN with a favorable course of the disease.

**Materials & Methods:** We observed 11 patients with TEN, with a favorable period of the disease, the amino acid composition of blood serum was determined by the method of thin-layer two-dimensional chromatography.

**Results:** The study of the total indicators of the amino acid spectrum of blood of patients with a favorable course of TEN revealed changes, with a higher total level of replaceable and irreplaceable aminoAK. In patients in this period, the total number of AK and partially irreplaceable AK remained within normal limits, the content of irreplaceable (231.1±14.7) (p<0.01); 188.5±10.61 (control group) and sulfur-containing 206.9±21.2 (p<0.05) AK; 61.8±7.3 (control group) significantly decreased. A significant increase in the ratio of leucine and isoleucine was noted in this phase of TEN. In the serum of patients with a favorable course of the disease, an increase in the total number of AAs (p<0.05) was observed with an increase in the level of essential (p<0.01) and sulfur-containing AAs (p<0.05). The ratio of the following AAs increased statistically significantly: essential AA/substitute AA ( $1.06\pm0.19$ ;  $0.50\pm0.11$  (control group); )essential and partially essential AA/substitute AA, ( $1.17\pm0.21$ ;  $0.59\pm0.12$  (control group) methionine/cysteine, phenylalanine/tyrosine (p<0.05).\*\* As a result of the study of the state of the blood amino acid spectrum in patients with TEN hypo- and hyperaminoacidemia, which have characteristic deviations depending on the clinical manifestations of the diseases.

**Conclusion:** The identified disorders of the spectrum of AAs and their breakdown products require a differentiated approach to their correction with metabolic therapy drugs.





# Rare Adverse Effects of IL-17 Inhibitors: A Case of Prurigo Nodularis Induced by Bimekizumab

Duncan MacIntyre<sup>1</sup>, Hiba Elhaj<sup>2</sup>, Kelsey Orrell<sup>3</sup>

<sup>1</sup>University of Illinois College of Medicine at Chicago, Chicago, United States <sup>2</sup>McGill University - Faculty of Medicine, Montréal, Canada <sup>3</sup>Cleveland Clinic Canada Downtown, Toronto, Canada

# Introduction & Objectives:

Interleukin-17 (IL-17) inhibitors, including Bimekizumab, have revolutionized psoriasis vulgaris (PV) treatment, offering durable disease control. However, paradoxical inflammatory reactions can occur, requiring vigilance. Prurigo nodularis (PN) is a chronic inflammatory disorder with intense pruritus and neuroimmune dysregulation. While PN has been reported with other biologics, no cases have been linked to Bimekizumab. We present the first documented case of Bimekizumab-induced PN, emphasizing the need for awareness of rare dermatologic adverse events associated with IL-17 inhibition.

# Materials & Methods:

A 43-year-old male with chronic PV (30% BSA, PASI 12.8, DLQI 18) was started on Bimekizumab after failing methotrexate and topical therapies. The patient underwent serial clinical assessments, and histopathology was performed when new-onset nodules appeared. The effect of Bimekizumab discontinuation was documented.

#### **Results:**

At 3 months, the patient achieved near-complete PV clearance, especially in treatment-resistant areas. However, he developed multiple red-brown nodules on his extremities, refractory to topical therapy. These lesions worsened over time, becoming hyperkeratotic, excoriated, and intensely pruritic, leading to significant discomfort and a decline in quality of life.

By 6 months, the patient agreed to a biopsy, which revealed hyperkeratosis, irregular acanthosis, dermal fibrosis, and vertical collagen streaking, consistent with PN. Given the strong temporal association, Bimekizumab was discontinued.

PN lesions showed marked improvement within three months, with complete resolution at five months, confirming a paradoxical reaction. However, psoriasis flared post-discontinuation, causing worsening erythematous plaques that led to functional and cosmetic concerns. Given the patient's history of refractory PV, he was transitioned to an IL-23 inhibitor, which provided partial disease control without recurrence of PN.

# **Conclusion:**

This is the first reported case of Bimekizumab-induced PN, broadening the spectrum of paradoxical reactions to IL-17 inhibitors. The rapid resolution of PN after drug cessation suggests a causal relationship, raising key questions about IL-17 inhibition and neuroimmune pathways. Despite initial PV clearance, the development of PN highlights the complexity of biologic-associated paradoxical inflammation and underscores the importance of dermatologic monitoring in patients on systemic therapy.

Clinicians must recognize PN as a possible adverse effect, enabling early diagnosis and intervention. Delayed identification may lead to unnecessary treatment discontinuation or misdiagnosis, impacting long-term disease management. This case also reinforces the need for individualized therapeutic strategies in biologic-treated patients, balancing efficacy, safety, and quality of life considerations. Further pharmacovigilance and research are critical to clarifying mechanisms underlying

paradoxical skin reactions and optimizing treatment algorithms for affected patients.





## Clinical presentation of acute localized exanthematous pustulosis (ALEP): A case report.

Yassmina el Ghallal<sup>1</sup>, Ouiam el Jouari<sup>2</sup>, Salim Gallouj<sup>2</sup>

<sup>1</sup>chu Tanger Med 6, Dermatology , Tangier , Morocco <sup>2</sup>chu Tanger Med 6, Dermatology , Tangier

## Introduction & Objectives:

Acute localized exanthematous pustulosis (ALEP) is a rare skin condition marked by erythematous-pustular lesions, typically on the limbs. While it is usually benign and resolves on its own, it can be challenging to diagnose due to its similarity to other inflammatory skin diseases. This case study aims to explore its features, presentation, and diagnostic and therapeutic aspects.

2025

## Materials & Methods:

A 43-year-old woman with a history of breast cancer and metastatic recurrence underwent palliative radiotherapy and was treated with Paclitaxel. She developed erythematous, pruritic lesions on her trunk and left upper limb, along with fever. Physical examination revealed infiltrated plaques with pustules. Skin biopsy showed epidermal changes and a neutrophilic inflammatory infiltrate. Based on clinical, histopathological findings, and imputability analysis, a diagnosis of Paclitaxel-induced acute localized exanthematous pustulosis (ALEP) was made. The lesions resolved with treatment using topical corticosteroids.

## **Results:**

Acute localized exanthematous pustulosis (ALEP) is a rare condition, often drug-induced, but can also be triggered by viral or bacterial infections. Most cases are linked to antibiotics, but other medications, including paclitaxel, have been implicated. Unlike AGEP, ALEP usually affects adults and is localized, often on the face, trunk, or limbs. The diagnosis is based on clinical findings, medication history, and skin biopsy, showing neutrophil infiltration and intra-epidermal pustules. Treatment involves stopping the offending drug, with most cases resolving spontaneously. In severe cases, topical corticosteroids may be used. The prognosis is generally favorable, though relapses can occur if the drug is reintroduced.

#### **Conclusion:**

Although rare and typically benign, recognizing acute localized exanthematous pustulosis (ALEP) is important. Early detection and identifying the responsible drug lead to quick symptom relief and prevent complications. Further research is needed to better understand its underlying mechanisms, risk factors, and improve clinical management.

#### Dermatological Toxicities of Oncologic Therapies: Diagnosis and Therapeutic Approaches

Gabriela Mariana Iancu<sup>1, 2</sup>, Andrada Mihaela Ilcus<sup>2</sup>

/MPOSIUM

<sup>1</sup>Lucian Blaga University of Sibiu, Faculty of Medicine, Sibiu, Romania <sup>2</sup>Spitalul Clinic Judeţean de Urgenţă Sibiu, Dermatovenerology Clinic, Sibiu, Romania The evolution of oncological therapies has significantly improved patient survival and quality of life. However, these treatments are frequently associated with various cutaneous adverse reactions, which may impact treatment adherence and overall patient well-being. This study examines some of the cutaneous reactions induced by conventional chemotherapy, targeted therapies, and immunotherapy in oncology patients, emphasizing their pathogenesis, clinical presentation, and management strategies.

Traditional chemotherapeutic agents act by inhibiting cell proliferation, affecting both neoplastic and healthy tissues, leading to adverse dermatological effects. Targeted therapies, designed to selectively inhibit molecular pathways essential for tumor growth, have distinct yet sometimes severe dermatologic side effects, including papulopustular eruptions and severe xerosis. Immunotherapy, particularly immune checkpoint inhibitors (ICIs), triggers immune-mediated reactions, including lichenoid dermatitis and vitiligo-like depigmentation. We present some of the cases that reffered to our clinic:

\1. Pembrolizumab-induced lichen planus in a 67-year-old male with bronchopulmonary adenocarcinoma, leading to treatment discontinuation due to the association with hepatotoxicity.

\2. Palmar-plantar erythrodysesthesia secondary to capecitabine in a 79-year-old patient with colorectal cancer, successfully managed with corticosteroids and supportive care.

\3. Cetuximab-induced papulo-pustular eruption in two colorectal cancer patients, responding well to topical and systemic antibiotics.

\4. Panitumumab-induced toxicoderma, characterized by erythematous-squamous lesions, treated with systemic and topical corticosteroids.

Early recognition and management of these dermatological toxicities are crucial to

maintaining oncological therapy without compromising patient quality of life. A

multidisciplinary approach involving dermatologists and oncologists is essential for

optimizing treatment outcomes and minimizing therapy discontinuation due to cutaneous side

effects.

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## Lichenoid eruption and lichen sclerosus as a manifestation of late skin toxicity due to adjuvant immunotherapy

2025

Simona Kalcheva<sup>1</sup>, Snejina Vassileva<sup>1</sup>, Vesela Ivanova<sup>1</sup>, Tihomir Dikov<sup>1</sup>, Kossara Drenovska<sup>1</sup>

<sup>1</sup>University Hospital "Alexandrovska", Medical University – Sofia, Sofia, Bulgaria

#### Introduction & Objectives:

Pembrolizumab is a type of immunotherapy drug called an immune checkpoint inhibitor (ICI-LDE). It works by binding to the protein PD-1 on the surface of the T cells, which keeps cancer cells from suppressing the immune system and therefore the drug allows it to attack them. Pembrolizumab is approved to treat melanoma malignum, lung cancer, cervical cancer, Hodgkin lymphoma and etc. As for every drug pembrolizumab has its side effects. The most common are skin rashes, diarrhea and fatigue.

## Materials & Methods:

A 68-year-old woman who presented with intermittent pruritus on her trunk and genitals, solitary erythematous papules on her cleavage, upper and lower extremities. The patient was diagnosed with carcinoma of the cervix in 2015, high grade basal cell carcinoma of the face in 2016, squamous cell carcinoma of the left lung with metastases in the mediastinal lymph nodes and in the eighth right rib in 2022. She had gone through chemotherapy, radiotherapy, immunotherapy and surgery treatments over the years. On the day of the dermatological examination the patient was on 12 courses of maintaining immunotherapy with pembrolizumab – 200 mg with a complete metabolic and morphological response in lung, lymph nodes and bone (April 2024). The diagnostic workup included clinical recognition, histopathology of a skin and vulvar lesion as well as DIF and IFA.

## **Results:**

The histology of the vulvar lesion - orthokeratotic hyperkeratosis, hypergranulosis, slightly edematous dermis, sparse mixed inflammatory infiltrate with lymphocytes and eosinophils. Massons's staining of the same lesion showed collagen, P16 (-) neg., P53 (+) pos. marking on scattered nuclei located in the basal and suprabasal layers. From the skin lesion - hyperkeratosis, smoothing of the DEJ, preserved epidermal maturation; perivascular, periadnexal and subepidermal mononuclear infiltrate of lymphocytes, macrophages/histiocytes and eosinophils. DIF was negative, as well as ELISA for BP 180 and 230. The patient was diagnosed with lichen planus due to treatment with pembrolizumab. The treatment was highly potent local corticosteroids and emollients.

#### **Conclusion:**

Lichenoid eruption from ICI-LDE occur in 5-6% of the patients. They are distinguished by a heterogeneous appearance and later onset of the skin eruption with significant atypism, polymorphism and longer persistence. Usually the diagnosis and treatment are delayed. There is a good response to topical and systemic corticosteroids and antihistamines.

## Bullous pemphigoid as an adverse event during therapy with immune checkpoint inhibitors: a literature review

Y 2025

Aleksandra Spyra<sup>1</sup>, Zuzanna Pawlus<sup>1</sup>, Mikołaj Łanocha<sup>2</sup>, Anna Tekielak<sup>2</sup>, Beata Bergler-Czop<sup>2</sup>

<sup>1</sup>Medical University of Silesia, Students' Scientific Association at the Chair and Department of Dermatology, Katowice, Poland

<sup>2</sup>Medical University of Silesia, Katowice, Poland

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## Introduction & Objectives:

A new class of anticancer drugs, immune checkpoint inhibitors (ICIs), include monoclonal antibodies against cytotoxic Tlymphocyte-associated antigen-4 (CTLA-4) (ipilimumab, tremelimumab), programmed death-1 (PD-1) (nivolumab, pembrolizumab), and programmed death-ligand 1 (PD-L1) (durvalumab, atezolizumab). These drugs stimulate the immune system to destroy cancer cells. Nevertheless, during this therapy, healthy cells are also attacked, which can lead to adverse outcomes. Approximately 50% of patients experience cutaneous side effects, mainly of mild severity, manifesting as maculopapular rash and pruritus. However, in 0.3-0.8% of cases, an autoimmune blistering skin disease - ICI-related bullous pemphigoid (BP), occurs. It presents as widespread urticarial plaques, which progress into tense blisters and erosions, imposing a significant burden on patients and thus affecting the efficacy of anticancer treatment. The aim of this work is to present reports on the above-mentioned complication and the main risk factors for its occurrence.

#### Materials & Methods:

A detailed literature review was conducted using the PubMed and Embase databases to assess BP as an adverse event during ICIs therapy. Studies published until December 2024 were considered. A search was conducted using the key terms "bullous pemphigoid" and "immune checkpoint inhibitors." The initial search yielded 46 results in PubMed and 220 in Embase, from which 10 studies were selected and reviewed after screening the titles and abstracts.

#### **Results:**

In all studies analyzed, PD-1 inhibitor therapy was associated with a higher risk of developing ICI-related BP compared to CTLA-4 and PD-L1 inhibitors. The age of individuals with this complication ranged from 38 to 88 years, with a predominance of patients over 65 years of age. A higher incidence of BP was observed in male patients (62% to 83%). The interval between drug administration and onset of symptoms ranged from 21 to 414 days, with a median duration of 7 months. In 38.2% to 77.8% of patients, discontinuation of ICI treatment or reduction of dosage was necessary.

#### **Conclusion:**

The primary risk factors for ICI-related BP include treatment with PD-1 inhibitors, male gender, age 65 years and older, and skin cancer as the reason for initiating treatment. The occurrence of this complication during ICIs therapy has a negative impact on the quality of life of patients and thus on the success of cancer treatment. Monitoring patients for early symptoms of BP may allow for more timely intervention and improved outcomes. This review may be limited by the small number of analyzed studies and their methodological diversity. There is a need for further, larger studies on this complication and its treatment options.

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## Injection-Site Inflammatory Reaction Following Hormone Therapy in a 75-Year-Old Patient: A Case Report

Yasmine Farai<sup>1</sup>, Hajar Ammari<sup>2</sup>, Amine Ennaciri<sup>1</sup>, Ilyass Anouar<sup>1</sup>, Mohamed el Amraoui<sup>1</sup>, Youssef Zemmez<sup>1</sup>, Rachid Frikh<sup>1</sup>

2025

<sup>1</sup>Mohammed V Military Teaching Hospital, Dermatology, Rabat, Morocco <sup>2</sup>Mohammed V Military Teaching Hospital, dermatology, rabat, Morocco

**Introduction & Objectives:** Injection-site reactions are a recognized complication of gonadotropin-releasing hormone (GnRH) agonists like leuprolide and goserelin, commonly used in prostate cancer management. These reactions may stem from local trauma, immune responses, or bacterial contamination, with the depot effect potentially aggravating inflammation. The aim of this study is to highlight injection-site hypodermitis as a complication of GnRH agonists and emphasize the need for early recognition and appropriate management.

**Materials & Methods:** We reported a case of a 75-year-old man with a history of benign prostatic hyperplasia and prostate adenocarcinoma, previously treated with transurethral resection of the prostate (TURP), radiotherapy, and Zoladex hormone therapy. One week after injection, he developed a painful, warm, erythematous plaque at the injection site without systemic infection signs. Clinical evaluation, laboratory tests, and imaging confirmed localized injection-site hypodermitis.

**Results:** The patient was treated with oral amoxicillin-clavulanic acid (1 g three times daily for seven days), resulting in complete symptom resolution within ten days. Studies have reported injection-site complications in up to 5% of patients receiving long-term GnRH agonist therapy; including pain, erythema, and swelling. Contributing factors include improper injection techniques, poor aseptic conditions, and patient-specific risks such as diabetes or immunosuppression.

Mild cases can be managed with local anti-inflammatory measures, while suspected bacterial infections require empirical antibiotic therapy targeting common pathogens such as *Staphylococcus aureus* and *Streptococcus* species. In cases of abscess formation, surgical drainage may be necessary.

Preventive strategies are essential to reducing complications. Strict aseptic techniques, site rotation, and patient education on early infection signs can improve outcomes and facilitate timely intervention.

**Conclusion:** This case underscores the importance of recognizing injection-site hypodermitis as a potential adverse effect of GnRH agonist therapy. Early diagnosis and appropriate management can prevent complications and improve patient outcomes. Preventive measures should be emphasized in clinical practice to reduce the incidence of such reactions.





## Stevens-Johnson Syndrome in an Adolescent: Treatment with High-Dose Corticosteroids

Fatima Aulia Khairani<sup>1</sup>

<sup>1</sup>Prabumulih Regional General Hospital, Dermatology and Venereology, Prabumulih, Indonesia

**Introduction & Objectives:** Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are severe, lifethreatening conditions that are rarely seen in adolescents. These disorders are characterized by the development of erythematous and purpuric macules, which progress to flaccid blisters and epidermal detachment, mainly triggered by systemic medications. Prompt treatment is urgently needed to prevent complications and sequelae of SJS and TEN in adolescents. High dose of corticosteroids remain the preferred therapy for SJS/TEN in some countries, but their safety and efficacy in adolescents are still unclear.

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**Materials & Methods:** A 16-year-old boy presented the emergency room with a chief complaint of conjunctivitis and painful blisters with multiple erosions on the chest, extremities, lips, and the genital area. Four days prior to admission, patient had a history of cough, which was treated with amoxicillin and paracetamol. Upon admission, the patient was conscious, febrile, showed a positive Nikolsky sign, and had less than 10% total body surface area involvement. A diagnosis of SJS was made, likely triggered by amoxicillin or paracetamol, and both medications were discontinued. The patient received intravenous fluid, high dose of systemic corticosteroids (equal to prednisone 3 mg/kg/day), systemic gentamicin, and dermatologic care for the skin, eyes, and mouth.

**Results:** During the first four days of hospitalization, new blisters continued to form. The patient also reported symptoms of conjunctivitis, photophobia, dysuria, and difficulty swallowing. Consultations were conducted with both an ophthalmologist and otolaryngologist. The formation of new blisters ceased the following day, and the patient's symptoms began to improve. The corticosteroid dosage was gradually tapered, and the patient was discharged after 10 days of hospitalization. Progressive reepithelialization was observed as improvement, with no significant side effects.

**Conclusion:** High-dose corticosteroids administered over a short period are well tolerated by the patient. However, clinical studies are needed to further assess the safety and efficacy of high-dose corticosteroid for treating SJS/TEN in adolescents.





## Gliptin-Induced Dyshidrosiform Bullous Pemphigoid in a Diabetic Patient: A Case Report

Sreyasvi Sibbadi<sup>1</sup>, Akash Agarwal<sup>\*1</sup>, Maitreyee Panda<sup>1</sup>

<sup>1</sup>Institute of Medical Sciences and Sum Hospital, Bhubaneswar, India

#### Introduction & Objectives:

Bullous pemphigoid (BP) is a chronic autoimmune blistering disorder characterized by autoantibodies targeting hemidesmosomal proteins, leading to subepidermal blister formation. Recent studies have implicated dipeptidyl peptidase-4 (DPP-4) inhibitors, commonly known as gliptins, in triggering BP. Dyshidrosiform BP is a rare variant, often misdiagnosed due to its atypical presentation. Here, we report a unique case of gliptin-induced dyshidrosiform BP in a diabetic patient, emphasizing the need for vigilance in patients on DPP-4 inhibitors

2025

## Materials & Methods:

A 79-year-old male, a known case of type 2 diabetes mellitus (T2DM) for 25 years presented with multiple intact painful bullae and erosions on the bilateral palms and soles. His diabetes was poorly controlled on oral metformin, dapagliflozin, injectable insulin, and vildagliptin, the latter initiated six months prior.

Initially, the provisional diagnosis considered was bullous diabeticorum. The patient was treated with intravenous antibiotics, along with insulin therapy. Despite therapy, new bullae continued to erupt, wherein a differential of dyshydrosiform bullous pemphigoid was considered. A skin biopsy and direct immunofluorescence (DIF) from a vesicle on the right palm were performed. Histopathology revealed subepidermal blistering with eosinophilic infiltrates, while DIF demonstrated linear deposition of IgG and C3 along the basement membrane zone, confirming bullous pemphigoid. Given the temporal relationship with vildagliptin use, a final diagnosis of gliptin-induced dyshidrosiform BP was made.

#### **Results:**

The patient responded well to systemic corticosteroids, which were gradually tapered over two months. Discontinuation of vildagliptin led to a marked reduction in new lesion formation. His diabetes was subsequently managed without DPP-4 inhibitors. No recurrence was noted on follow-up.

# **Conclusion:**

Gliptin-induced bullous pemphigoid (BP), particularly its dyshidrosiform variant, remains an underrecognized entity. To the best of our knowledge, gliptin-induced dyshidrosiform BP has not been reported to date. Early identification through clinical suspicion, histopathology, and direct immunofluorescence (DIF) is crucial for prompt management. Discontinuation of the offending agent, combined with corticosteroids, remains the cornerstone of treatment. Clinicians should be aware of this association in diabetic patients presenting with bullous disorders to ensure timely intervention and improved outcomes





# Estimation of Methotrexate Levels in Hair as a Useful Indicator of MethotrexateToxicity

Amit Bahuguna\*1

<sup>1</sup>Command Hospital Air Force Bengaluru, Department of Dermatology, Venereology and Leprology, Bengaluru, India

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**Introduction & Objectives:** Methotrexate (MTX) is a folate antagonist widely used in malignancies, rheumatoid arthritis, and psoriasis due to its antiproliferative and anti-inflammatory properties. However, its narrow therapeutic index makes toxicity a significant concern. Current monitoring methods, such as serum or plasma MTX levels, are limited by short detection windows and variability due to renal function and hydration status. Hair analysis presents a novel, non-invasive biomarker reflecting cumulative MTX exposure over time. This study aims to:

- 1. Establish a reliable method for detecting methotrexate levels in hair.
- 2. Determine the correlation between hair methotrexate levels, systemic toxicity, and clinical outcomes.
- 3. Evaluate the utility of hair methotrexate levels as a biomarker for cumulative drug exposure compared to serum or plasma monitoring.

**Materials & Methods:** This prospective observational study was conducted at a tertiary care hospital over 12 months. Patients aged  $\geq$ 18 years receiving MTX for rheumatoid arthritis, psoriasis, or malignancies were included, while those with pre-existing liver or kidney dysfunction were excluded. Hair samples (~20 mg) were collected from the occipital region at baseline and at 3-month intervals. Methotrexate levels were quantified using liquid chromatography-tandem mass spectrometry (LC-MS/MS). Simultaneously, serum MTX levels and toxicity markers (liver enzymes, renal function, hematological parameters) were assessed. Adverse effects such as hepatotoxicity, myelosuppression, and mucositis were documented. Pearson correlation, regression models, and receiver operating characteristic (ROC) curves were employed for statistical analysis.

**Results:** Hair methotrexate levels correlated significantly with cumulative dose (R = 0.82, p < 0.001) and systemic toxicity markers. Patients with hair methotrexate concentrations >10 ng/mg had a higher likelihood of hepatotoxicity (ALT > 2× ULN, p = 0.01) and myelosuppression (platelets <150 × 10^9/L, p = 0.03). ROC curve analysis demonstrated that hair methotrexate levels predicted toxicity with an AUC of 0.89 (95% CI: 0.84–0.93), outperforming serum levels (AUC: 0.75). Multivariate regression analysis confirmed hair methotrexate levels as an independent predictor of toxicity after adjusting for age, sex, renal function, and MTX dose (p < 0.05).

**Conclusion:** Hair methotrexate levels serve as a promising, non-invasive, long-term biomarker for monitoring MTX exposure and toxicity. Unlike serum levels, which fluctuate due to hydration and renal clearance, hair analysis provides a cumulative record, making it particularly valuable for chronic dosing regimens. Strong correlations between hair methotrexate levels and systemic toxicity highlight its clinical utility. Additionally, hair sampling is minimally invasive, convenient, and cost-effective, potentially improving patient compliance. Study limitations include a small sample size and individual variability in hair growth. Future research should focus on standardizing hair sampling techniques, assessing the impact of hair treatments and pigmentation, and expanding investigations to pediatric populations and other chronic conditions treated with MTX.





#### Fatal Toxic Epidermal Necrolysis Induced by Allopurinol: A Report of Two Cases

Meryem el Bakkali<sup>1</sup>, Ouiame El Jouari<sup>1</sup>, Khediija Bennani<sup>1</sup>, Salim Gallouj<sup>1</sup>

<sup>1</sup>University Hospital Mohamed VI, Department of Dermatology and Venereology,, Tanger, Morocco

#### Introduction & Objectives:

Allopurinol, commonly used to treat gout, is increasingly prescribed for asymptomatic hyperuricemia, especially in patients with renal or cardiovascular conditions. However, it is associated with severe, potentially fatal hypersensitivity reactions, including drug rash with eosinophilia, Stevens-Johnson syndrome, and toxic epidermal necrolysis. We present two fatal cases of severe cutaneous reactions to allopurinol in patients with asymptomatic hyperuricemia.

2025

The objective of this report is to emphasize the risks of allopurinol misuse, particularly severe cutaneous and visceral complications. By sharing these cases, we aim to raise awareness of the importance of following treatment guidelines, adjusting doses for renal impairment, and avoiding unnecessary allopurinol use in asymptomatic hyperuricemia, ultimately enhancing patient safety and preventing adverse outcomes.

## Materials & Methods:

We report two cases of severe cutaneous adverse reactions linked to allopurinol treatment for asymptomatic hyperuricemia. Case 1 involves a 64-year-old woman with multiple comorbidities who developed widespread epidermal detachment, mucosal involvement, and hemodynamic instability after starting allopurinol, leading to death despite intensive care. Case 2 describes a 62-year-old woman who initially improved after discontinuing allopurinol, but after its accidental reintroduction, she developed severe skin detachment and multiorgan dysfunction, ultimately resulting in death. These cases highlight the life-threatening risks of allopurinol, particularly in patients with underlying conditions.

#### **Results:**

allopurinol is one of the most common drugs that induce Severe Cutaneous Adverse Reactions (SCARs), namely Stevens Johnson syndrome (SJS)/Lyell syndrome (LS) and DRESS (Drug Reaction with Eosinophilia and Systemic Symptoms)

Historically, urate-lowering drugs were widely prescribed to individuals with asymptomatic hyperuricemia. However, current evidence does not support a direct causal link between hyperuricemia and cardiovascular disease, leading to a change in clinical practice, with these medications no longer being routinely recommended for asymptomatic individuals.

#### **Conclusion:**

The incidence of allopurinol-induced toxic dermatological reactions, along with their potentially severe outcomes, can be minimized by adhering strictly to the established guidelines for its use and by adjusting the dosage in patients with chronic renal impairment. It is essential to recognize that inappropriate treatment of asymptomatic hyperuricemia, especially with allopurinol, can lead to adverse consequences, including fatal outcomes. Therefore, careful consideration and appropriate management of urate-lowering therapy are crucial to preventing such risks and ensuring patient safety.





## Acneiform drug eruption: Retrospective evaluation of the cases from a tertiary health-care center

Mehmet Gülengül\*<sup>1</sup>, Elif Çağla Aydın<sup>1</sup>, Yusuf Can Edek<sup>1</sup>, Esra Adışen<sup>1</sup>

<sup>1</sup>Gazi University Faculty of Medicine, Department of Dermatology, Ankara, Türkiye

## **Introduction & Objectives**

Acneiform drug eruptions (ADEs) are inflammatory papulopustular reactions triggered by medications such as corticosteroids, antiepileptics, biologics and chemotherapeutics agents. Their pathogenesis involves sebocyte dysfunction, immune dysregulation and individual drug metabolism variations.

This retrospective study analyzed 80 patients with ADEs, focusing on demographics, underlying diseases, causative drugs, and clinical course. The findings aim to enhance the understanding of the etiopathogenesis and guide clinical management.

# **Materials & Methods**

In this study, demographic, clinical and laboratory data af cases diagnosed with ADE between 2021-2024 in our hospital were evaluated.

#### Results

In this study, data of 80 patients diagnosed with ADEs were analyzed. The study population included 62.5% male and 37.5% female, with a mean age of 40.93±16.73 years.

A statistically significant relationship was found between gender and eruption severity (p=0.001). The mean duration from symptom onset to diagnosis was 6.89 ± 13.19 weeks, with EGFR inhibitor-induced eruptions lasting longer than those caused by other drugs.

The most frequently implicated drugs were EGFR inhibitors (26.25%), systemic corticosteroids (21.25%) and conventional chemotherapeutics (10%). However, no significant association was found between the causative drug and eruption severity (p > 0.05). No significant correlation was found between the severity of eruption and the underlying diseases requiring the use of these drugs (p > 0.05).

The trunk and face were the most frequently affected areas. According to the CTCAE, 63.75% of patients had Grade 1, 28.75% had Grade 2, and 7.5% had Grade 3 eruptions, with malignancy detected in 83.3% of Grade 3 patients.

No statistically significant correlation was observed between laboratory parameters (LDH, albumin, creatinine, WBC) and eruption severity. A weak positive correlation was found between albumin and severity (r=0.041), while LDH showed minimal correlation (r=0.000), but neither was statistically significant.

Regarding treatment, 62.5% of patients received topical therapy alone, 32.5% received combined systemic and topical therapy, and 5% were treated with systemic therapy alone. Treatment modality was not significantly associated with eruption severity (p=0.647).

#### Conclusion

This retrospective study evaluated the etiological factors, clinical course, and treatment responses of ADEs. The findings indicate that gender significantly influences eruption severity, with male patients experiencing more severe reactions, possibly due to hormonal and sebaceous gland differences.

Although no significant difference was found in eruption duration among drug groups, lesions caused by EGFR inhibitors lasted longer, supporting their role in prolonged inflammation. Neither the causative drug nor underlying diseases were significantly associated with severity. Similarly, metastatic disease did not influence severity.

There was no significant correlation between laboratory parameters (LDH, albumin, creatinine, WBC) and eruption severity. Treatment modality was not statistically linked to severity, though systemic therapy was more common in severe cases, reflecting clinical variability in treatment approaches.

These findings emphasize gender as a key determinant of acneiform eruption severity, while drug type, underlying diseases, and laboratory parameters do not play a significant role.





## ustekinumab-induced ichthyosiform drug eruption

Ouissal Essadeq<sup>1</sup>, Narjess Er-Rachdy<sup>1</sup>

<sup>1</sup>Dermatology Venerology Department, Ibn Sina University Hospital, Mohammed V University, Rabat, Morocco

#### Introduction & Objectives:

Ustekinumab is a monoclonal antibody targeting the p40 subunit of interleukin-12 and interleukin-23. It has received approval for treating psoriasis, psoriatic arthritis, Crohn's disease, and ulcerative colitis.

However, further clinical trial data is necessary to thoroughly evaluate its safety and efficacy.

Here, we present a case of ichthyosiform drug eruption localized in a 64-year-old male undergoing ustekinumab treatment.

#### Materials & Methods:

A 64-year-old man with a severe form of ulcerative colitis, diagnosed 7 years ago, presented at our department.

Over the past years, he had been treated with various conventional disease-modifying anti-inflammatory drugs, including non-steroidal anti-inflammatory drugs, mesalazine, corticosteroids, azathioprine and infliximab. Due to corticosteroid dependency and insufficient disease control, ustekinumab was administered. Three months after starting ustekinumab treatment, the patient developed acquired ichthyosis on his legs.

#### **Results:**

Skin examination revealed thickened, plate-like shiny patches with diffuse scaling on the extremities bilaterally. The patient also exhibited severe xerosis throughout his body and complained of intense pruritus, occurring both during the day and at night following injections. The remainder of the examination was unremarkable, with no evidence of organomegaly or superficial lymphadenopathy.

The clinical presentation suggested either ichthyosiform mycosis fungoides or acquired ichthyosis as adverse effects of ustekinumab.

Biopsy of the lesions revealed histologic features resembling lamellar ichthyosis, and a band-like lymphohistiocytic infiltrate. The response from the pharmacovigilance center strongly amplicates ustekinumab.

The patient experienced moderate improvement with petrolatum/lanolin ointment and was able to continue his treatment.

# **Conclusion:**

Drug-induced acquired ichthyosis can be caused by various medications and pose challenges in management due to their symptoms, visibility, and may necessitate dose reduction or discontinuation of treatment.

No cases of ichthyosis secondary to ustekinumab had been reported. To our knowledge, this is the first case of acquired ichthyosis as a side effect of the biologic therapy ustekinumab.







## "Late-Onset Bullous Pemphigoid Following Prolonged Sitagliptin Use: A Case Review":

Sihame Alaoui<sup>1</sup>, Nadia Ismaili<sup>2</sup>, Meriam Meziane<sup>2</sup>, Syrine Hamada<sup>2</sup>, Laila Benzekri<sup>3</sup>

<sup>1</sup>university hospital center Ibn Sina , Dermatology and venorology Department, Rabat, Morocco <sup>2</sup>university hospital center Ibn Sina , Rabat, Morocco <sup>3</sup>university hospital center Ibn Sina , Dermatology, Rabat, Morocco

## Introduction & Objectives:

Bullous pemphigoid (BP) is a chronic autoimmune skin disease characterized by tense, pruritic, generalized bullae. The mechanism involves an autoimmune response against BP180 and/or BP230 proteins at the dermal-epidermal junction.

Although this condition often has an autoimmune basis, drug-induced BP is well known. Recently, a new class of oral hypoglycemic agents known as dipeptidyl peptidase-4 (DPP-4) inhibitors, also known as gliptins, has also been implicated.

The objective of case report is to raise awareness of the potential for bullous pemphigoid to develop after prolonged use of sitagliptin.

#### **Case Report:**

A 76-year-old male with a history of psoriasis, high blood pressure, hyperuricemia, nephropathy, no known drug allergies and type 2 diabetes mellitus.

Treatment was prescribed in the form of metformin 1000mg/12 h, Sitagliptin 50 mg/12 h was added to his antidiabetic therapy starting in 2020.

After 3 years, he was admitted to dermatology in September 2023 with pruritic bullous lesions on an erythematous base on his back, trunk and extremities, with some psoriasis lesions, scaly erythematous plaques on elbows and knees.

On the other hand, there was no mucosal involvement or other associated signs.

#### **Results:**

Skin biopsy revealed a subepidermal cleft with inflammatory infiltrate composed predominantly of eosinophils and a few neutrophils in the dermis, with positive direct immunofluorescence for C3 at the basement membrane and positive indirect immunofluorescence for 1280.

Skin lesions began to disappear progressively after 2 weeks of doxycycline 00 mg x2/day orally and clobetasol propionate 2 tubes/day.

one month later, the patient consulted an endocrinologist who reintroduced sitagliptin, 1 week later, the patient presented new bullous lesions, this confirmed the diagnosis of gliptin-induced BP.

The patient was advised to stop the drug and was shifted to an alternate oral hypoglycemic agent, one week later, we noted an improvement in the lesions.

#### **Conclusion:**

It is very important to distinguish between idiopathic and drug-induced conditions, as they are clinically and histopathologically indistinguishable. A detailed medical history must be taken and all medications taken by the patient

recorded to avoid missing medical conditions of drug-related origin.

MPOSIUM

# A Rare Case of Scarlatiniform Desquamative Erythema Recidivans Induced by Iodinated Contrast Medium

Lina Mouline<sup>1</sup>, Rasha Moumna<sup>1</sup>, Darghal Hanane<sup>1</sup>, Najoua Ammar<sup>1</sup>, Meriam Meziane<sup>1</sup>, Laila Benzekri<sup>1</sup>, Karima Senoussi<sup>1</sup>

2025

 $^{1}$ مستشفى ابن سينا, Department of Dermatology and Venerology, Rabat, Morocco

#### Introduction & Objectives:

Scarlatiniform desquamative erythema recidivans (ESDR) is a rare skin condition characterized by recurrent episodes of erythema followed by extensive lamellar desquamation, primarily affecting the palms and soles. It often begins with a prodromal phase, including symptoms such as malaise, fever, headache, and muscle pain, before the eruption appears. The disease can present in both generalized and localized forms, with the latter predominantly involving the hands and feet. While the etiology of ESDR remains unclear, it is sometimes triggered by drug hypersensitivity or infections. We report a case of ESDR induced by a radiological contrast medium containing Iohexol, which, to our knowledge, is the third case described in the literature.

## **Materials & Methods:**

A 57-year-old male patient, followed in the pulmonology department for a moderate pleural effusion under exploration, was referred to dermatology after developing a bullous erythema with minimal pruritus on his palms and soles, 6 hours after the administration of a radiological contrast medium containing Iohexol. At the time of consultation, three days after the onset of symptoms, early desquamation was noted in the interdigital areas. The patient had previously experienced similar symptoms one month earlier, 24 hours after receiving iodinated contrast media during a thoracic CT scan. A skin biopsy was performed, and pharmacovigilance was notified.

#### **Results:**

Histological examination showed capillary fibrinoid necrosis, consistent with a drug-induced vasculitis. Pharmacovigilance response attributed the adverse effect to the contrast medium with a high causality score of I5, B2. Symptomatic treatment with a healing cream led to a significant improvement, with desquamation occurring in large scales after 7 days, resembling glove-like peeling of the palms and soles. Similar presentations have been reported in the literature, with erythema, pruritus, and papulovesicular lesions occurring 24 hours after a CT scan with iodinated contrast (Ioversol). In one of the two previous cases, patch tests were used to confirm the diagnosis, and the patient showed a favorable response to high-potency corticosteroids. However, there is no consensus on treatment, and some authors suggest that symptomatic treatment alone is sufficient, given the spontaneous favorable evolution of ESDR. In our case, there was no need for a patch test, as the exact recurrence of symptoms upon reintroduction of the contrast medium was sufficient for diagnosis. Our patient was managed with a healing cream, with a significant improvement of his condition, supporting the notion that symptomatic treatment may be adequate for ESDR.

#### **Conclusion:**

ESDR induced by radiological contrast medium is a rare and distinctive dermatological reaction. To our knowledge, this is the third reported case in the literature. Early recognition and appropriate management, primarily with symptomatic treatment, are crucial for favorable outcomes. Clinicians should be aware of this rare entity and its potential to occur following the use of contrast agents.







# Localized acute exanthematous pustulosis ALEP, an entity not to be ignored: about a pediatric case.

Louktam Mariem<sup>1</sup>, Mariem Aboudourib<sup>1</sup>, Bendaoud Layla<sup>1</sup>, Said Amal<sup>1</sup>, Ouafa Hocar<sup>1</sup>

<sup>1</sup>CHU mohammed 6, dermatology, marrakech, Morocco

#### Introduction:

Acute localized exanthematous pustulosis (ALEP) is a rare, localized variant of acute generalized exanthematous pustulosis (AGEP). The most frequent cause is drug-induced.

We report a case of drug-induced ALEP in a child.

## **Case report:**

It is an 8-year-old girl, followed for BMI and hospitalized in paediatric surgery for management of equine feet. No family or personal ATCDS. Presented a localized pustular eruption, 3 days after taking Amoxicillin-Clavulanic acid for a documented urinary tract infection.

Clinical examination reveals multiple confluent non-follicular pustules on an oedematous, erythematous base with slight desquamation. Localized on the shoulder to the neck. No mucosal involvement, and associated general signs.

Bacteriological sampling of the pustule was sterile, and the laboratory work-up was unremarkable.

Skin biopsy of one pustule showed acanthosis in the epidermis with mild spongiosis and a perivascular dermal infiltrate of lymphocytes and neutrophils.

The diagnosis of ALEP to amoxicillin clavulanic acid was made by: The clinical appearance, the temporal relationship between antibiotic and the rash, and the negativity of the bacteriological examination.

The evolution was marked by the regression with desquamation at D5 after stopping the Amoxicillin-Clavulanic acid.

#### **Discussion:**

ALEP is a rare entity, a localized atypical variant of AGEP. Characterized by multiple sterile, non-follicular pustules the size of pinheads developing on an erythematous, oedematous background, generally localized on the face, neck or chest.

Generally appears 3 to 5 days after taking a drug, and disappears rapidly when stopped.

It was described in 2005 by Prange et al. localized on the face, and since then cases have been increasingly reported in the literature.

In a literature review of 2021, 38 cases were reported. The drugs implicated were antibiotics (betalactamines) with amoxicillin-clavulanic acid in 6 cases.

Although in some cases, ALEP can be induced by bacterial, viral or plant infection. It can be induced by topical application, as in a case reported in 2023 of a ALEP induced by the application of minoxidil, confirmed by minoxidil-positive patch tests.

Concerning ALEP in the paediatric population, a case was recently reported in an 11-year-old child due to cefixime, with a review of the literature reporting 8 paediatric cases, 6 of which were due to plants and 2 to drugs, notably lamotrigine and amoxicillin.

Some authors have proposed diagnostic criteria in line with the Euro SCAR criteria for ALEP:

Localized, numerous and small (1-3 mm) non-follicular pustules; an erythematous base; negative microbiology; acute onset (< 72 h) after medication and resolution (with desquamation) within 14 days of discontinuation. patch tests or oral rechallenges may be used.

As a cutaneous reaction the spontaneous evolution is favourable within a few days. Treatment is based on immediate removal of the triggering agent. Potent topical corticosteroids can be used to reduce inflammation and pruritus.

The management is based on individual case reports, and there is a lack of randomized controlled trials for treatment.

# **Conclusion:**

ALEP is a rare variant of AGEP. It is an important entity to be aware of in the paediatric population, especially following antibiotic treatment (Blactamines). Pathogenesis and treatment are not always clear.





# Lichenoid Drug Eruption Due to Imatinib

Bouchra Idrissi Rhenimi<sup>1</sup>, Lina Benchekroun<sup>1</sup>, Syrine Hamada<sup>1</sup>

<sup>1</sup>Ibn Sina, Rabat, Morocco

## Introduction:

Chronic myeloid leukemia (CML) is a clonal hematologic disorder classified as a myeloproliferative neoplasm, characterized by the t(9;22)(q34;q11.2) translocation, leading to the formation of the Philadelphia chromosome and the BCR-ABL1 fusion gene. The advent of tyrosine kinase inhibitors (TKIs), such as Imatinib, has significantly improved survival rates and can even be curative. However, these drugs frequently cause adverse effects, including dermatological reactions that impact quality of life and treatment adherence. Lichenoid drug eruptions are rare, with oral involvement being extremely uncommon, and nail involvement previously unreported. We present the first documented case of an Imatinib-induced lichenoid drug eruption with nail involvement.

# **Case report:**

A 63-year-old patient with CML on Imatinib (800 mg daily) developed generalized pruritus with leukocytosis and eosinophilia one month after starting treatment. Symptoms initially improved but worsened, requiring a 20-day treatment pause. Upon reintroduction, the patient developed hyperpigmented, infiltrated, and scaly macules, first on the neck, then spreading. Hyperpigmentation was most pronounced on the face, neck, and upper limbs. Dermoscopy showed perifollicular pigmentation without Wickham striae. Nail examination revealed trachyonychia, half-and-half nails, and koilonychia affecting both thumbs. The patient also had lichenoid cheilitis, but genital mucosa was unaffected. Histopathology confirmed a lichenoid drug eruption, showing epidermal acanthosis, lymphocytic infiltration, eosinophils, and pigment incontinence. Imatinib was discontinued, and within two months, pruritus resolved, and skin lesions regressed. Dasatinib was introduced, with no recurrence at follow-up.

# **Discussion:**

The absence of prior dermatological conditions, coupled with the symptom timeline and resolution upon discontinuation, strongly suggested an Imatinib-induced lichenoid drug eruption. The reappearance of symptoms following reintroduction further supported this diagnosis. While cutaneous reactions to Imatinib are relatively common (9–69% of cases), lichenoid drug eruptions remain rare, with only about 30 cases reported in the literature. The variability in clinical presentation includes psoriasiform, eczematous, and lichenoid features, as observed in our patient. The reported onset of lichenoid drug eruptions ranges from 1 to 12 months after treatment initiation, with an average of 3.6 months. To our knowledge, this is the first documented case of an Imatinib-induced lichenoid drug eruption associated with nail involvement.

# **Conclusion:**

Lichenoid drug eruptions due to Imatinib may require discontinuation or dose reduction, with topical corticosteroids for symptom relief. In cases of recurrence, alternative TKIs should be considered.





# Toxic Epidermal Necrolysis Secondary to Xanthine Oxidase Inhibitor Use

Diana Verónica Romero Escamilla<sup>1</sup>

<sup>1</sup>ISSSTE, Ciudad de México, Mexico

## Toxic Epidermal Necrolysis Secondary to Xanthine Oxidase Inhibitor Use

**Introduction & Objectives:** The skin is a frequent target of adverse drug reactions, with an incidence of 19% in hospitalized patients. Severe cutaneous adverse reactions account for 2-5% of cases. The WHO defines severe drug reactions as those requiring hospitalization, causing significant disability, life-threatening conditions, or death. In 1922, Stevens and Johnson described two cases of children with fever, severe stomatitis, ocular involvement, and erythematous macular rash, later termed Stevens-Johnson Syndrome. We present a case of a 49-year-old woman with hyperuricemia who developed dermatosis after starting Allopurinol.

**Materials & Methods:** A female patient with Type 2 Diabetes was prescribed Allopurinol for hyperuricemia. Nineteen days later, she developed generalized dermatosis, first appearing on the limbs as plaques with blisters, later spreading to the chest, abdomen, and oral mucosa ulcers. She had a positive Nikolsky sign, fever, acute kidney injury, and lymphopenia. Diagnosed with Toxic Epidermal Necrolysis (SCORTEN 2, Lund-Browder 81% involvement), her condition worsened within 24 hours, with dysphagia, sialorrhea, and mucosal erosion. She underwent surgical debridement, a skin biopsy, and placement of a central venous catheter for parenteral nutrition. Affected areas, including oral and perianal mucosa, were treated with Lassar paste. Biopsy confirmed a severe form of Erythema Multiforme, classified as Toxic Epidermal Necrolysis, likely due to Allopurinol. She was discharged after 40 days and continued follow-up with Dermatology and Internal Medicine.

**Results:** Toxic Epidermal Necrolysis, also known as Lyell's Syndrome, is a severe dermatological condition with high mortality. It causes large epidermal detachments, fluid imbalance, and multi-organ failure, potentially fatal if over 60% of body surface is affected. In the Stevens-Johnson Syndrome-Toxic Epidermal Necrolysis spectrum, <10% body surface involvement is classified as Stevens-Johnson Syndrome, >30% as Toxic Epidermal Necrolysis, and 10-30% as transitional forms.

**Conclusion:** Toxic Epidermal Necrolysis is a life-threatening dermatological emergency requiring early diagnosis and discontinuation of the causative drug. Identifying severity aids monitoring and supportive treatment, enabling remission, healing, and prevention of complications. Early recognition is crucial, with a multidisciplinary approach being key. Drug cessation and supportive measures are the cornerstone of treatment.