#### Abstract N°: 746

### Effects of Systemic Treatment on the Risk for Cardiovascular Diseases in Psoriasis: A Nationwide Population-Based Study in South Korea

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#### EADV Berlin abstract (<3,000 characters): 2,991 characters

#### Introduction & Objectives:

Psoriasis has been linked to various comorbidities including hypertension, dyslipidemia, metabolic syndrome, and cardiovascular diseases (CVDs). Despite the advent of new era of biologics, many patients with moderate-to-severe psoriasis still continue to take systemic immunosuppressants (IS) due to insurance issues. The use of IS such as cyclosporine can cause adverse events including hypertension, dyslipidemia, and glucose intolerance, which raises concerns about the potential for additional risk of CVDs caused by the drug themselves. Thus, we planned to investigate the incidence rate and the risks of hypertension, dyslipidemia, and major cardiovascular events (MACE) 1 or 3 years after systemic treatment for patients with psoriasis.

#### Materials & Methods:

A customized database of the National Health Insurance Service of South Korea (2002-2019) was utilized. The diagnosis of psoriasis and CVDs was based on ICD 10th revision codes. 1:1 propensity score matching was done between patients with psoriasis who received systemic treatment and those who did not. Each patient who had received systemic treatment was assigned to one of six mutually exclusive cohorts: biologics, cyclosporine, methotrexate, mixed immunosuppressant, or phototherapy cohorts. Patients who had not received any systemic treatment were assigned to the control cohort. The association between systemic treatment and the incidence of CVDs was assessed using a Cox proportional hazards model.

#### **Results:**

The incidence rates of hypertension per 100 person-years (PY) were 5.26, 4.24, 3.14, 2.20, 1.50, and 1.49 in the mixed immunosuppressant, methotrexate, cyclosporine, biologics, control, and phototherapy cohorts, respectively. The incidence rates of dyslipidemia per 100 PY were 3.39, 2.27, 1.96, 1.93, 0.95, and 0.83 and the incidence rates of MACE per 100 PY were 3.41, 3.12, 2.01, 1.37, 0.69, and 0.66 in the same order, respectively. Patients with psoriasis who received any systemic treatment had a significantly higher hazard ratio (HR) for hypertension, dyslipidemia and MACE than those who did not (HR 1.43, 1.60, 1.77). The mixed immunosuppressant cohort had the highest HR for hypertension, dyslipidemia and MACE (HR 3.49, 4.08, 4.94), followed by methotrexate (HR 2.82, 2.73, 4.52), cyclosporine (HR 2.09, 2.36, 2.92), biologics (HR 1.46, 2.33, 1.98), and phototherapy cohorts (HR 1.00, 1.14, 0.96).

#### **Conclusion:**

The findings of our study suggest that patients with psoriasis who received any systemic treatment are at a higher risk for developing CVDs. The mixed immunosuppressant cohort had the highest risk of CVD events, followed by methotrexate, cyclosporine, biologics, and phototherapy cohorts. It remains unclear whether it is derived from the psoriasis itself or the treatment, as the disease severity could not be adjusted. Nevertheless, our results suggest that biologics may be an ideal option to prevent potential CVDs in psoriasis compared to immunosuppressants.



#### Abstract N°: 840

### An observational analysis of trends in malignant melanoma mortality and incidence in European Union 15+ countries between 1990 and 2019

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#### Introduction & Objectives:

Malignant skin melanoma (MM) is the leading cause of skin cancer mortality with associated high healthcare costs. Reporting of epidemiological trends may support the assessment of the effectiveness of new diagnostic, therapeutic and preventative strategies. Our objective is to firstly present an up-to-date analysis of MM mortality trends across countries with high quality data reporting practices and comparably high health expenditure, namely the countries of the European Union (EU) 15+. And secondly, to compare these mortality trends with trends in melanoma incidence across the same time period, to enable broader understanding of population-based case fatality rates and thus country specific disease burden.

#### Materials & Methods:

An observational study of the Global Burden of Disease (GBD) database between 1990 and 2019 was performed. Nineteen high-income countries with similar health expenditure and classified as having high-quality mortality data including the UK, USA, Australia and selected EU countries were included. Annual age-standardized death rates (ASDRs) and age-standardized incidence rates (ASIRs) were obtained from the GBD database. Mortality-to-incidence indexes (MII) were calculated by dividing ASDR by ASIR. Trends were analysed through Joinpoint regression (command-line version 4.5.0.1; https://surveillance.cancer.gov/joinpoint).

**Results:** All countries reported increases in male MM mortality, except Luxembourg (-10.34%) and Australia (-1.66%). The largest percentage increase in male MM mortality was seen in Greece (+87%) and Portugal (+59%). Eleven countries (58%) reported increases in female MM mortality, with the largest percentage increase in the Netherlands (+45%) and Greece (+44%). Eight countries (42%) reported decreases in female MM mortality, with the largest percentage decrease in the USA (-11.32%) and Australia (-8.97%).

In 2019, the highest ASDRs for both sexes were seen in Australia (males: 5.93 per 100 000, females: 2.74 per 100 000) and Norway (males: 4.37 per 100 000, females: 2.77 per 100 000). The most recent joinpoint analysis (including the years 2016 to 2019) shows significantly decreasing mortality in all countries, except the UK.

All countries showed an increase in MM incidence over the observation period in both sexes. The largest percentage increases were seen in Ireland (males: +232%, females +145%) and Portugal (males: +230%, females: +272%). The most recent joinpoint analysis (including the years 2012 to 2019) shows estimated annual percentage changes (EAPCs) ranging between -1 to 1 per 100 000 population, suggesting plateau of incidence

rates.

All countries showed significantly decreasing MIIs over the observation period in both sexes. The largest percentage decrease was seen in Ireland (males -57%, females -59%), the smallest in Australia (males -31%, females -20%) and the USA (-males 29%, females -21%). Males had higher MIIs than females in all countries. The greatest decrease in MII EAPCs was seen in the 1990s.

**Conclusion:** Over the past 30 years, MM mortality and incidence has increased in most countries. Analysis of the most recent years however, suggests MM mortality is decreasing and incidence rates are plateauing. Burden of MM disease as assessed with MIIs has decreased in all countries. Likely contributors to these trends might include public awareness campaigns leading to earlier detection and better prognosis, and advances in management.



### Porokeratosis Ptychotropica - a critical analysis of the worldwide epidemiology, genopathogenesis, risk of cancerization and treatment options

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**Introduction & Objectives:** Porokeratosis ptychotropica (PP) is a rare and unusual variant of porokeratosis which involves the genitalia and associated-flexural areas. There are little published data on the natural history, epidemiology, and optimal treatment options for this extremely rare variant of porokeratosis.

Our study aimed to characterise the worldwide distribution, epidemiology, clinical features and treatments attempted for reported cases of PP.

**Materials & Methods:** We performed a literature search for all reported cases of PP from major databases, including PubMed, Scopus, Web of Science and Google Scholar. Analyses were conducted primarily on the epidemiology, clinical features and treatments reported for PP.

**Results:** A total of 59 cases of PP have been reported. Most of the reported cases originate from the United States, followed by China, Germany, and South Korea. The median age of patients affected with PP was 49 years. Of all the reported cases, 86.4% were male and 11.9% were female. Despite the inherent biases of studying a rare disease, analyses reveal the following: The crude cumulative incidence rate in the population of Singapore is likely to be approximately 2/(AUC of Singapore's population curve)/10 (in a 10-year period), which is equivalent to 21.3 x 10-10 per year. This is vanishingly rare. Similar calculations for worldwide incidence rates since the first recognition and description in 1995 by Lucker et al2, will give an approximate range of 117/(AUC of World Population curve to end of 2022)/27 years3 to 59 (this study)/(AUC of World Population curve to end of 2022)/27. This equates to a crude incidence rate of  $2.16 - 4.28 \times 10-10$  per year worldwide.

Characteristic clinical features include well demarcated red-brown scaly or verrucous plaques with raised keratotic borders, and satellite peripheral lesions. The most involved body locations are the buttocks and gluteal cleft. The mean duration of lesions at the time of presentation was 9.8 years. The risk of malignant transformation in PP is approximately 1.7%. The most commonly utilised treatment options are topical retinoids, oral retinoids and topical corticosteroids. Of all published cases, only 23.7% (14 out of 59 cases) reported satisfactory response to treatment. Treatment with novel topical cholesterol 2%/simvastatin or lovastatin 2% creams have been reported to be useful and deserves further study.

**Conclusion:** PP is a rare and under-recognised variant of porokeratosis with characteristic clinical features. Numerous treatments have been tried but the optimal treatment modality remains uncertain. Long term surveillance appears to be prudent for PP due to a risk of malignant transformation to SCC.



### All-cause and cause-specific mortality among patients with vitiligo: A nationwide population-based study in Korea

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**Introduction & Objectives:** Vitiligo is a common autoimmune skin disorder in which destruction of melanocytes results in skin depigmentation. However, there is limited information about risks of mortality among patients with vitiligo. The aim of this study was to investigate the mortality in patients with vitiligo.

**Materials & Methods:** A population-based cohort study was conducted using the data linkage of the National Health Insurance Service database and the National Death Registry. Patients with incident vitiligo were matched with sociodemographic factors-matched controls without vitiligo in a 1:5 ratio. All-cause and cause-specific mortality were compared between patients with vitiligo and controls.

**Results:** In total, 107,424 patients with incident vitiligo and 537,120 matched controls were included. The mortality rates were 34.8 and 45.3 per 10,000 person-years in patients and controls, respectively. Patients with vitiligo showed a significantly lower risk of mortality (adjusted HR, 0.75; 95% confidence interval, 0.72-0.78). The cause-specific mortality from infectious diseases, oncologic diseases, hematologic diseases, endocrine diseases, neurologic diseases, cardiovascular diseases, respiratory diseases, and renal/urogenital disease was significantly lower in patients with vitiligo.

**Conclusion:** Patients with vitiligo were associated with a lower risk of mortality, suggesting that vitiligo-associated autoimmunity might contribute to reduced morbidity and mortality.



#### Hormone replacement therapy and psoriasis risk: a nationwide population-based cohort study

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#### **Introduction & Objectives:**

Hormone replacement therapy (HRT) is used to relieve menopause symptoms, but has been reported to be associated with coronary heart disease and cancers in women. However, a link between HRT and psoriasis has yet to be established. We investigated the association between HRT and the risk of psoriasis in our study.

#### Materials & Methods:

We executed a nationwide population-based study. A total of 1,130,741 post-menopause women were enrolled in the national health care insurance database based on the enrollment criteria. The study population was classified into four groups based on the duration of the HRT, and the risk of psoriasis was analyzed.

#### **Results:**

The incidence rates of psoriasis per 1,000 person-years were 3.36 and 4.09 in the no history of HRT and  $\geq$  5 years of HRT, respectively. After adjustment for age, smoking, alcohol intake, regular exercise, body mass index, diabetes mellitus, hypertension, and dyslipidemia, the most prolonged duration of the HRT group ( $\geq$  5 years) exhibited significantly increased risk of developing psoriasis (hazard ratio: 1.22, 95% confidence interval: 1.16-1.29).

#### **Conclusion:**

We suggest that HRT in post-menopausal women is a risk factor for the development of psoriasis.

#### Abstract N°: 1752

### Cycle irregularity, perimenopause and post-partum can influence self-perception of skin disorders and impact wellbeing: results of a worldwide epidemiological study

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#### **Introduction & Objectives:**

Impact of hormonal variations on skin disorders in women has been poorly studied. This worldwide epidemiological study describes self-perceived skin disorders in women at various stages of their hormonal life and across their menstrual cycle.

#### Materials & Methods:

Online interviews have been conducted using the Ipsos Access Panel with quota method applied\*\* to age, occupation, and region, from January to February 2023. 20.001 interviews have been conducted in 20 countries from 5 continents among representative samples of women aged from 18 to 55 years. Women were classified into mutually exclusive subgroups: menopausal (n=1463), perimenopausal (n=3918), post-partum that gave birth less than two years ago (n=1978) and active ovulation (n=13571), including regular (59%) and irregular (41%) cycles. Women were asked about 12 skin disorders (changes in pore dilation, skin shininess, skin paler, skin elasticity, skin tone, skin thickness, pigmentation spots or patches, wrinkles, redness, dark circles, flakiness), skin dryness and sensitivity, wellbeing, and their variations across the menstrual cycle when relevant.

#### **Results:**

Most women (91%) experienced at least one skin disorder. 61% of women with active ovulation complained that skin disorders were present or worsened at a certain time point of the cycle, mainly before or during menstruation (76%). Of note, three out of four skin disorders are present or worsen throughout menses, being pale skin, dark circles under the eyes and dull skin tone the three skin disorders most reported at this moment of the cycle (50%, 49% and 49% respectively). Interestingly, the peri-ovulation period seems to reduce self-perceived skin disorders. For perimenopausal women, skin disorders were significantly overrepresented (96% with at least one skin disorder). Conversely, they were underrepresented in the menopausal population (88% with at least one skin disorder). Skin disorders were significantly overrepresented among post-partum women as well: 93% of them experienced at least one skin disorder. From their perspective, the three most common skin disorders were dark circles, pore dilation and dull skin tone (67%, 57% and 56% respectively). Accordingly, women felt hormonal variations negatively impact their wellbeing in 72% of cases, being 82% in the perimenopausal group and 79% in the post-partum group.

#### **Conclusion:**

The study showed a significant impact of hormone variations on skin disorders, across the women hormonal life and the menstrual cycle. Their prevalence increases in frequency mainly during the perimenopause, the premenstrual or menstrual stages of the cycle and post-partum, with parallel alteration of wellbeing. These periods in women's life deserve, therefore, special attention from the dermatologist and adapted cosmetic advice to address women needs related to their hormonal status. This is a request from the vast majority of women, paving the way to endocrinologic supportive skincare.

#### Abstract N°: 1811

#### Perception and attitudes of the Moroccan general population towards photoprotection

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#### Introduction & Objectives:

Prolonged sun exposure has harmful effects on the skin, and knowledge of various preventive measures for photoprotection is essential. The objective of our study is to evaluate the perception, attitudes, and knowledge of a sample of the Moroccan general population towards photoprotection.

#### Materials & Methods:

This is a descriptive cross-sectional study conducted in May 2022 through a 27-question survey, including information on individuals and their knowledge of photoprotection measures. A score rated out of 15 and divided into three categories (poor, good, and excellent) was created to estimate the level of knowledge regarding sun exposure.

#### **Results:**

We collected data from 244 individuals with a mean age of 35.1 years and a female/male sex ratio of 1.9. Regarding the level of education, 25.5% had higher education, 50% had a high school diploma, and 24.4% of the population was illiterate or had a primary level of education. The socioeconomic level was low for 26.2%, average for 62.3%, and high for 11.5% of the population. The analysis of the overall knowledge score showed poor results for 39.3% of the surveyed individuals, good knowledge for 35.3%, and excellent knowledge for 25.4% of the population. For example, among the available protection methods, 81.1% knew about sunscreen, 62.7% about clothing, 44.3% about hats, and only 17.6% about anti-UV glasses. The majority, 70.9%, responded that sunscreen should be applied just before sun exposure, and only 13.9% apply it 30 minutes before. The application of a sun product allows for longer exposure to the sun for 81.6%. Regarding the risks associated with sun exposure, knowledge was rated as average: skin aging was known by 41.8%, skin cancer by 69.3%, pigmentation by 40.6%, and sun-induced dermatosis by 25.8%. Finally, only 22.5% responded that they had been educated about photoprotection.

#### **Conclusion:**

With the increasing incidence of skin cancers and aesthetic concerns, photoprotection is becoming more and more important to the population. However, this interest remains insufficient. In our study, the level of knowledge regarding the risks associated with sun exposure is good. However, knowledge of sun products and their use is not as good. These attitudes and knowledge vary according to gender, age, level of education, and socioeconomic status. Moreover, 58.6% of our population responded that sun protection is only needed in the summer, whereas in a sunny country such as Morocco, photoprotection is necessary all year round. Our results are in line with those of numerous studies in the literature. This study justifies the implementation of prevention and information campaigns to try to modify individuals' behaviors towards sun exposure.

#### Abstract N°: 1964

#### Epidemiology and trend of skin cancer incidence in Golestan province, Iran, during 2005-2018

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**Introduction & Objectives:** According to the World Health Organization, skin cancer accounts for one-third of all cancers diagnosed. It is divided into two main groups: melanoma and non-melanoma skin cancers. Considering the high prevalence of skin cancer in the Middle East and the research gap regarding the incidence and trends of the disease in Northern Iran, the present study aimed to investigate the epidemiology of skin cancer and its trend changes from 2005 to 2018 in the Golestan Province, Northeast of Iran.

**Materials & Methods:** This retrospective study was conducted on all diagnosed cases of skin cancer in the Golestan Province during 2005-2018. Data of patients were collected from the data bank of the Golestan Population-based Cancer Registry. After data preparation and quality control, statistical analysis was performed at 95% confidence interval (CI).

**Results:** Overall, 1,690 newly diagnosed skin cancer patients (mean age: 62.05 ± 15.83 years) were included in the study. The majority of the patients were male (60.1%) and living in urban areas (61.5%). The age-standardized rate (ASR) of non-melanoma and melanoma skin cancer was 8.49 and 0.56 per 100,000 person-years, respectively. The ASR of non-melanoma skin cancer was significantly higher in men (ASR: 10.60; CI95%: 9.91-11.29) than in women (ASR: 6.45; CI95%: 5.92-6.98). Similarly, the ASR of non-melanoma skin cancer was significantly higher in the urban population (ASR: 10.19; CI95%: 9.52-10.82) than in the rural population (ASR: 6.68; CI95%: 7.23- 6.13). There was no significant difference in the ASR of melanoma skin cancer based on gender and place of residence. There was also no significant difference in the incidence of melanoma (estimated annual percent change: -3.28; CI95%: -18.54 to 14.83) and non-melanoma skin cancer (estimated annual percent change: 0.39; CI95%: -3.99 to 4.97). However, the incidence rate of non-melanoma skin cancer was higher in the western parts of the province compared with the eastern parts.

**Conclusion:** According to our findings, the age-standardized incidence rate of both skin cancer types has had a constant trend for 14years; however, the ASR of non-melanoma skin cancer was higher in men and urban residents, which should be taken into account and addressed when planning for both prevention and control strategies in the study area.



### An epidemiological study of skin diseases among the paediatric population attending a tertiary dermatology referral center in Portugal over the last two decades

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#### **Introduction & Objectives:**

Paediatric skin diseases are frequent and account for many referrals and hospital consultations. This study aimed to determine the characteristics of referrals and evaluate the prevalence of skin diseases in patients referred to the Paediatric Dermatology (PD) consultation at a tertiary hospital in Portugal. Finally, then analyze its changes across the years.

#### **Material & Methods:**

A study was conducted on all patients referred to the PD consultation at the Centro Hospitalar de Vila Nova de Gaia/Espinho from January 1, 2012, to March 31, 2022 - variables such as gender, age, diagnosis, and referral method were analyzed. A comparative analysis was also carried out between the current statistics and those published by our center from 1998 to 2008.

#### **Results:**

A total of 3816 patients were observed. The mean age was eight years, and most patients were included in the school-age children and adolescent group (71%). Nevi were the most common cause of referral, with 1240 children (27.8%), followed by infectious and eczematous disorders. Melanocytic nevi were the most common diagnosis in children of all age groups. The ten most common diagnoses were responsible for more than half of referrals. General practitioners and Paediatricians were responsible for more than 85% of referrals. There were significant differences with the survey reported ten years ago - nevi had a significant increase. In contrast, infectious diseases and eczemas had a substantial and moderate decrease, respectively, as other diseases.

#### **Conclusion:**

This study highlights a shift in referrals to Paediatric Dermatology across the last two decades. Epidemiological studies are essential as they allow us to know the reality regarding the prevalence of skin diseases and their possible variations over the years. In this way, they allow for improving preventive medicine, reducing the incidence of skin diseases in childhood.

#### Abstract N°: 2246

#### Prevalence of hidradenitis suppurativa in Poland

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#### Introduction & Objectives:

Hidradenitis suppurativa (HS) is a persistent, detrimental disorder affecting apocrine glands regions of the skin. HS epitomizes an instance of a very debilitating ailment that instigates a significant depletion of quality of life. 7 years pass for the diagnosis to be established. Undoubtedly, the mentioned diagnostic delay and, as a result, the delay in the implementation of the proper treatment contribute to the intricacies of the illness occurrence.

Robust data on the prevalence of HS remains inconsistent. The meta-regression analysis revealed an overall prevalence of 0.4%. The reported point prevalence of HS worldwide is between 0.0003% and 4.1%. This glaring discrepancy is presumably elicited by heterogeneous measurement methods and populations being studied. Registry-based studies denote a low prevalence of HS, whereas survey studies demonstrate a substantially higher prevalence in the range of 1-2%.

The aim of our study was to expound on and subsume the prevalence of HS in the Polish population. Initial epidemiologic aspects revealed by the registration of patients in the public healthcare data shed some light on the incidence of HS in Poland. Scrutinizing the data of the National Health Fund, in the period of 2014 to 2016, the estimated prevalence indicated 0,001%. This data significantly differs from those mentioned above. Seemingly, the disparity stems from imprecisely translated the ICD-10 code of this disorder. Furthermore, detectability and awareness of HS among dermatologists in Poland seem to be high, but they are not the only physicians that patients refer to.

#### Materials & Methods:

In the study we conducted, participants were persons accompanying patients administered to the hospital. A questionnaire created by the center coordinating international cooperation was utilized. Individuals who tested positive with the screening questionnaire underwent a physical examination by a dermatologist. The representative group was estimated at 385 people. The size of the study group was 932 participants. People who could potentially suffer from HS, underwent a physical examination to verify the initial assessment. In addition, 10% of participants who did not report symptoms were tested to determine the false-negative rate.

#### **Results:**

14/932 respondents (1.5% (95%CI 0.64–2.15%)) were diagnosed with HS. Women constituted 33% of patients and men 67% (p = 0.06). The median age in the control group was 55 and 38 in the HS group (p=0.001). The median BMI in the control group was calculated at 25.3 and in the HS group at 28.7 (p=0.007). According to the Hurley classification, lesions of Hurley I severity were diagnosed in 8 patients and Hurley II in 6 patients.

#### **Conclusion:**

Data from the National Health Fund apprehend HS as a seldom entity, with a prevalence of 0.001%. The results of the current study show a significant underestimation of the prevalence of this disease. Presumably, it alludes to the fact that this disorder is not correctly diagnosed among various clinicians. The expected outcome of the study

is a better understanding of the prevalence of HS. In consequence, the insufficiency in the diagnostic pathway of HS, especially in early detection and treatment, may be reduced. A more comprehensive approach would enhance detectability and awareness of HS, thereby leading to earlier treatment implementation and preventing the complications that may occur due to the diagnostic delay.

#### Abstract N°: 2720

#### Knowledge of free radicals and antioxidants in dermatology in the general population

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#### Introduction & Objectives:

The main indication for antioxidants in dermatology are photodamage, aging, melasma, non-melanoma skin cancer, psoriasis, alopecia, and other dermatoses (Addor 2017). Nowadays, the word "antioxidant" is more and more present in everyday language. Antioxidants are often associated with cancer prevention and their importance in skin disease is much less known.

The aim of the present survey was to investigate, in one general population, their knowledge of the role free radicals and antioxidants with a specific focus on the skin.

#### Materials & Methods:

This web-based online survey was conducted on a representative sample of the 15 000 French population aged 18 years or more.

Knowledge of free radicals and antioxidants was investigated. The main question was: "Do you know free radicals?", with possible answers "yes" or "no"

It was also asked if antioxidants contained in a dermocosmetic treatment protect the skin cells from oxidation, and if the use of an antioxidant serum helps delaying skin aging and improve the complexion radiance.

#### **Results:**

Data were collected on 15050 participants. 56% of participants declared to know free radicals. More than half of them answered that it is true that free radicals may be harmful to the body and may cause cells oxidation. On the total population, 51.5% thought that oxidation of skin cells increases skin aging, while this answer was given by 78.3% of participants who reported knowledge of free radicals. Among factors causing production of free radicals the most frequent answer was UV, followed by smoking, pollution, and alcohol. Only about 40% answered that sleep deprivation and overworks could cause production of free radicals. Almost 60% of people who knew free radicals thought that the antioxidants contained in a dermocosmetic treatment protect the skin cells from oxidation, and 62.2% that the use of an antioxidant serum helps delaying skin aging and improve the complexion radiance.

All positive answers were significantly more frequent in women than in men. Knowledge of free radicals increased with age from 26% in participants aged from 18 to 24 years to 52.8% in people aged 65 years or higher. In one logistic regression knowledge of free radicals was associated with age, gender, education, and living area. Knowledge was higher at an older age, in women, in more educated participants and in those living in urban areas.

#### **Conclusion:**

In this survey of a large sample of the French general population, we observed that about half of participants had some information on free radicals and antioxidants. To our knowledge, this is the first study performed in a large representative sample of the general population. Even though most people were aware of the existence of oxidants and antioxidants, there is still a lack of information on their role and on how to prevent oxidative stress.

#### Abstract N°: 2785

#### Impact of menopause on the skin...information still insufficient

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#### Introduction & Objectives:

Menopause is not a disease; it is a physiological situation that affects all women in their fifties. That said, the resulting lack of oestrogen can lead to atrophic skin changes and acceleration of skin aging. Thus, the impact of menopause on the skin is often underestimated or even ignored by health professionals and induces the fact that women can live it as a fatality linked to the passing of life. The objective of this survey was to collect the state of knowledge and concerns of exposed women concerning menopause and its impact on the skin.

#### Materials & Methods:

The women were recruited from February to April 2022 from a representative sample of the general French adult population aged 18 years and overusing proportional quota sampling based on the distribution of the population by age, gender, administrative region, environment (large cities, towns and rural areas) and income to ensure the national representativeness of the sample.

#### **Results:**

Following that recruitment method, a sample of 15050 French people [7105 men & 7945 women] aged 18 and more has been obtained. To limit the effect of age on the skin problems only women from 45 to 65 years who reported having experienced menopause has been selected, with as a result a sample of 2090 postmenopausal women.

A total of  $53.11\% \pm 2.14\%$  of menopausal women said they heard that menopause can affect the skin, with no difference by age group. A total of  $82.73\% \pm 1.62\%$  admitted having noticed one or more changes in their skin since menopause, 88.38% among those who said they had heard that menopause can affect the skin, 71.94% among others (p<0.001). The 2 most frequently cited changes are the dryness of the skin (60.19%), the deepening of wrinkles (45.93%). If the appearance or reappearance of acne is cited by 8.33%of women, this symptom is significantly related with age (45-49 years: 18.14%, 50-54 years: 8.20% 55-59years: 7.05%, 60-64 years: 6.78%, p<0.0001). All the symptoms reported (for the general population and by age group) are described in table 1

In impacted women, the most disturbing changes were hair loss (31,09%), excessive sweating (26,87%), skin dryness (21,38%), hair growth (20,83%) and wrinkle deepening (19,48%)

#### Conclusion

Surprisingly, almost one in two women (46.89%) was not aware that menopause also has an impact on the skin. 61% of them considered that they were not sufficiently informed about menopause; as a result of this non satisfying level of information, the women could face the impact of menopause on their skin as a fatality.

The impact of menopause on the skin is often underestimated or ignored by health professionals, which

can lead women to feel helpless and resign themselves to...the aging process. This study aimed to assess women's knowledge and concerns regarding menopause and its impact on the skin. The results showed that a significant percentage of women experienced skin changes during menopause, with drying out of the skin and deepening of wrinkles being the most frequently cited changes.

However, almost half of the women were not aware of the impact of menopause on the skin, and many felt they were not sufficiently informed about menopause. These findings highlight the importance of educating women and healthcare professionals about the impact of menopause on the skin to improve women's quality of life and self-esteem during this stage of life.



#### Attitudes and behaviors regarding sun exposure of French Population :Data from the All Skins-All Colors-All Dermatoses: the ALL PROJECT:

Bruno Halioua<sup>\*1</sup>, Charles Taieb<sup>2</sup>, Catherine Baissac<sup>3</sup>, Gautier Doat<sup>4</sup>, Yaron Ben Hayoun<sup>2</sup>, Marketa Saint Aroman<sup>3</sup>, Khaled Ezzedine<sup>5</sup>

<sup>1</sup>Dermatologist, <sup>2</sup>EMMA, <sup>3</sup>Pierre Fabre, <sup>4</sup>Avene, <sup>5</sup>EA EpiDermE

#### **Introduction & Objectives:**

Overexposure to ultraviolet (UV) radiation is the main preventable risk factor for skin carcinomas Limited information is available regarding sun protection behaviour in patients in France. The aim of this study was to aims to investigate the level of awareness on the risks related to sun exposure, attitude towards sun protection and sun protection behaviour in French Population..

#### **Material and methods**

A representative sample of the French population over the age of 16 was selected using the quota method.

The questionnaire gathered information about the patients' demographic and socio-demographic profiles. The patients were asked to specify the times of exposure to the sun, the notion of knowledge of the recommendations of the public health experts who advise against exposure between 11 am & 4 pm, the reasons for which they were exposed to the sun at these times and the use or not of sun protection products. It was asked to specify the motivations given by the users and the justifications delivered by the non-users of sun protection products.

#### Results

A population of 4000 was selected, including 1954 (48.9%) males and 2046 (51,1%) females respectively (mean age 45.54+/-16.69. (16-83 years).

1607 (40.2%) respondents reported that they were exposed to the sun between 11am & 4pm. The most frequent reason for this risk behaviour was that it corresponded to the most pleasant hours of the day (44.7%) and those the most convenient times of the day for their activities (39.5%). Age less than 40 years (49.4% vs 34.3%, p 5,3E-18) and gender (Male 45.8% vs Female 34.8%, p: 1,87E-09) are associated with a risk of exposure between 11 am & 4 pm (61.4% vs 45.6%, p :0.00015) but not. 75.9% of the respondents declared being aware of the recommendations of public health experts who advise against exposure between 11am & 4pm. Respondents who expose themselves between 11 am & 4 pm were less informed of these recommendations as other patients (71.4% vs 79.0%, p 1,43E-05). Of the respondents, 2076/2776 (74.8%) used sunscreen products during the sunniest period (32.8% every two hours). The motivation of those who use sun protection products is mainly the wish and to reduce the risk of sun burns (71.0%) and to limit the risk of skin cancers (46..0%)( table 2). On the other hand, the 700 (21.7%) respondents who do not apply sunscreen products explain mainly their behaviour by the fact that they do not think about it (55.7%) and because they consider that topical application is tedious (21.8%).

#### Discussion

This is the first study to assess both sun exposure risk behaviours and sunscreen use in an French representative population. Despite widespread dissemination of public health messages about the

importance of sun protection almost 40.2% of French adults do not protect themselves from sun exposure between 11 am & 4 pm. It is interesting to note that these high-risk skin cancer patients were less informed about sun protection recommendations as other patients. This suggests the need for an additional education program among these high-risk skin cancer patients to change their behavior. Only 32.8% used sun protection products every 2 hours during the sunniest time. We have highlighted that the motivation of those who apply sunscreen products is not only the desire to protect themselves from the risk of sun burns but also to limit the risk of skin cancers It is important to pursue an effective education policy on the effective use of sun protection. More targeted methods should be developed to prevent skin cancer.

#### Abstract N°: 2900

#### A case control study of association of acrochordons and metabolic syndrome

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#### A case control study of association of acrochordons and metabolic syndrome

**Introduction:** Acrochordons, also known as skin tags, soft fibromas, or fibroepithelial polyps, are soft, small, skin coloured to dark brown sessile, or pedunculated papilloma, commonly occurring on the neck, frequently seen on the axilla and eyelids, and less often on the trunk and groins. Some studies have found association of skin tags with obesity, diabetes, hypertension, atherogenic lipid profile and metabolic syndrome (MetS)\*\*

#### **Objectives:**

- 1. To study the association between metabolic syndrome and acrochordons.
- 2. To study the correlation of metabolic syndrome with number and size of acrochordons.

#### Materials & Methods:

A case control study was conducted including 200 participants. Hundred patients with acrochordons were considered cases and hundred age- and sex- matched patients without acrochordons were considered controls. Various anthropometric and biochemical parameters were compared and analyzed between two groups. Metabolic syndrome was diagnosed by the presence of 3 or more of the South Asian Modified National Cholesterol Education Program's Adult Panel III Criteria.

**Results:** Metabolic syndrome was significantly more common in acrochordon patients than in controls (P<0.01). There was significantly higher waist circumference and body mass index (BMI), high fasting blood glucose, total triglycerides, in cases compared to controls. There was statistical significance between the size of acrochordons and MetS with higher frequency of MetS seen in medium and large sized acrochordons group. There was no significant difference in systolic and diastolic blood pressure, total serum cholesterol, low density lipoproteins, high density lipoproteins between cases and controls. There was no significant difference between number of acrochordons and metabolic syndrome.

**Conclusion:** Acrochordons are not merely cosmetic, hence should be considered as a warning sign of metabolic syndrome and their presence may help in early detection at risk patients for cardiovascular morbidities.





#### Geriatric dermatology: an overlooked and underrated population

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#### Introduction & Objectives:

Geriatric dermatology is a rapidly-evolving and fast-growing discipline, but few studies are available about geriatric skin diseases. Elderly people present a wide array of dermatoses, ranging from degenerative and autoimmune to idiopathic and neoplastic conditions that may alter greatly their quality of life and lead to significant morbidity and mortality. The aim of our study is to determine the pattern and the frequency of the various dermatoses in the elderly population.

#### Materials & Methods:

Our work is a retrospective descriptive study including patients aged 65 years and older hospitalized in the dermatology department of our center, extending from the period between April 2014 to July 2022.

#### **Results:**

Over all, 296 patients were included, the mean age was**79 years +/- 8,35** with a M/F ratio of 1,17, the median period for consultation was 16 weeks [2,96].Pruritis was the main symptom affecting 36,7% of the patients. The most common dermatoses encountered by decreasing frequency were: **Skin tumors** were encountered in 30,8%, nonmelanocytic tumors were at the head of the list (9,3% for basal cell carcinoma versus 7,6% for squamous cell carcinoma), followed by Kaposi' sarcoma in 6,3%, melanoma in 3,1%, lymphoma in 2,2% and skin metastasis in 0,4%. **Infections** came next (23,7%) mainly skin and tissue infections of the lower limbs, favored by the high incidence of intertiginous fungal infections observed in 71% of the patients. **Autoimmune diseases** were observed in 22,8% of the patients mainly dominated by bullous pemphigoid (10,1%), pemphigus (4,4%) and dermatomyositis (1,7%). **Inflammatory diseases** were also encoutered (10,7%) made up mainly of prurigo and psoriasis. Other less frequently observed dermatoses were drug-eruptions (5,8%), diabetic and vascular ulcers (3,1%).

#### **Discussion:**

Population is aging around the world, raising the constantly evolving issue of geriatric healthcare. Indeed, life expectancy is increasing due the widespread advance in health technologies. According to Moroccan national data, elderly population has known an increase of 35% between the years of 2004-2014, this number is likely to increase in the following years urging the need to address geriatric health issues. A high frequency of neoplastic diseases was reported in our series, among of which non-melanoma skin tumors were the most frequent, explained probably by the high frequency of outdoor jobs resulting in chronic sun exposure. Kaposi's sarcoma was often encountered as well, the most preponderant form is the Mediterranean. Skin and tissue infection were the most common type of infection, explained by the high frequency of fungal infection in the elderly population favored in our context by daily religious ablutions. Similarly, an Indian study reported high incidences of skin infections in the elderly population, and fungal infections were the most prevalent. Autoimmune disorders in the geriatric age group are due to a decrease in immunologic functions, a similar large-scale Taiwanese study

reported that the most common autoimmune skin dermatoses encountered in the elderly population were bullous pemphigoid and pemphigus vulgaris, comparable to what we found in our series.

#### **Conclusion:**

Our work shows the high prevalence of skin diseases in the elderly population emphasizing the need for better management strategies and therapeutic approaches in order to decrease associated morbidity and mortality in this fragile population.

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#### Abstract N°: 3004

#### Skin adverse events of anti-cancer treatments: An examination of Drug-AE associations

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**Introduction & Objectives:** Although anti-cancer treatments, including chemotherapy (CTs), targeted therapies (TTs), radiation therapy, and immunotherapy (ITs), are effective to treat cancer, they can be associated with significant skin-related toxicities (AEs). These AEs can cause discomfort and even lead to the discontinuation of therapies. However, a comprehensive estimation of the associations between cancer drug use and skin AEs is currently lacking. This study aimed to investigate these associations using a large dataset.

**Materials & Methods:** This study utilized the US FDA Adverse Reporting System (FAERS) dataset, with a focus on HCPs reports from January 2013 to September 2022. The dataset consists of 3399830 reports involving 3084 all-field drugs and 16347 AEs. To minimize false positives, we employed a nearest-neighbor matching model to identify 10 control reports for each case report based on cosine distance on demographic and severity factors. To manage multiple comparisons and control the family-wise error rate (FWER) to 5%, we applied the Bonferroni correction.

**Results:** A total of 146 marketed anti-cancer drugs were identified in the database with at least 5 reports of skin AEs. Out of the 2757 drug-AE pairs, 708 displayed a significant reporting odds ratio (ROR) greater than one, consisting of 102 drugs and 135 skin AEs. The minimum ROR was 1.25, and 50% of the associations displayed a ROR above 11. Rash was significantly associated with 44 drugs and dry skin with 25 drugs. Methotrexate was significantly associated with 35 different AEs and anti-BRAF vemurafenib with 26 AEs. TCs were present in 57% of the pairs, CTS in 38%, and immune checkpoint blocking agents in 5%. Multikinase-I were present in 15% of the pairs, followed by antimetabolites (14%). Considering the relative weight of skin AEs on the safety profile of the drugs, skin AE were present on average in 11% of the drug reports, with a maximum of 51% for mechlorethamine. 12% of reports concerning CTs contained a skin AE, 11% for TTs, and 8% for ITs. For CTs, 13% of reports about antimetabolites contained a skin AE, followed by taxanes (12%). Vinca-alkaloids and topoisomerase-I were less impacted with 6% of skin AE reports. For TCs, 23% of reports about EGFR inhibitors contained a skin AE, followed by BRAF inhibitors (21%). PARP inhibitors and BTK inhibitors were less impacted with 8% of skin AE reports.

**Conclusion:** This study used a large dataset to examine the associations between cancer drugs and skin AEs. 146 anti-cancer drugs were found to have skin AEs, with rash and dry skin being the most reported AEs in the associations. TTs were most associated with skin AEs, followed by CTs. Methotrexate and vemurafenib had the most important number of associations. These data don't allow evaluation of the incidence of skin AE effect with anti-cancer drugs as they are probably under-reported, but the findings emphasize the importance of monitoring skin AEs in patients exposed to anti-cancer treatments. C1 - Internal use

C1 - Internal use

#### EA CONGRESS DV BERLIN 11-14 OCTOBER 2023

EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 3068

#### Prevalence and associations of common skin diseases in aged nursing home residents

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#### Title:

Prevalence and associations of common skin diseases in aged nursing home residents

#### Introduction & Objectives:

The number of aged people being care dependent increases continuously. Especially residents in long-term care facilities, who are affected by physical and cognitive impairments, show a clear need for the prevention and treatment of skin diseases. As the availability of dermatologists to perform on-site visits is limited, skin care and skin prevention routines provided by caregivers is getting even more important. The objective of this study was to estimate the prevalence and associations of common skin conditions in care dependent and multi-morbid patients.

#### Materials & Methods:

A population-based cross-sectional prevalence study in institutional long-term care facilities as part of a randomized-controlled trial was conducted. Three hundred fourteen subjects aged over 65 years in n = 17 nursing homes were included. A head-to-toe examination by dermatologists was performed, demographic, functional, and cognitive assessments were conducted.

#### **Results:**

Mean age was 85.4 years (SD 7.1) and 68.8% of the participants were female. The majority of the subjects was affected by xerosis cutis (95.9%, 95% CI 93.6 to 97.8), and one third by intertrigo (35.0%, 95% CI 30.0 to 40.1). The prevalence of incontinence-associated dermatitis was 21% (95% CI 15.6 to 26.3), of skin tears 10.5% (95% CI 7.3 to 13.8), and of pressure ulcers 8.0% (95% CI 5.1 to 10.8). The majority of the sample had two or more skin diseases at the same time. Apart from that, 19.1% of the nursing home residents had one or more additional dermatological diagnosis, whereas five percent were affected by actinic keratosis (5.1%, 95% CI 2.7 to 7.8), and 3.2% by basal cell carcinoma (3.2%, 95% CI 1.4 to 5.2) or fungal infections of the skin (3.2%, 95% CI 1.3 to 5.2). No associations between xerosis cutis, incontinence-associated dermatitis, skin tears, intertrigo, and pressure ulcer were found. Associations exist regarding care dependency, incontinence, limited mobility, and cognitive impairments.

#### **Conclusion:**

The prevalence of skin diseases in institutional long-term care is high, indicating a substantial burden in this vulnerable population. Evidence suggests that conducting structured skin assessments and providing basic skincare by nurses, helps to reduce the incidence of skin disease. It is unlikely that dermatologists are able to

provide direct specialized medical treatment to the increasing groups of aged and care dependent people.

#### Abstract N°: 3072

#### Epidemiology and co-morbidity of patients with vitiligo in Germany

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**Introduction & Objectives:** Vitiligo is a chronic autoimmune skin disease caused by progressive destruction of melanocytes in the epidermis. Despite the first published high case numbers, little is known about the disease frequency and comorbidity of patients with vitiligo in adjusted comparisons.

**Materials & Methods:** Retrospective cohort analysis (2014-2020) of SHI billing data from the German Analysis Database for Evaluation and Health Services Research (DADB) and DAK-Gesundheit with extrapolation to the entire German SHI insured population. Individuals with at least one confirmed outpatient or inpatient vitiligo diagnosis (ICD-10-GM L80) within one calendar year were counted as prevalent vitiligo cases. Comorbidities were identified and compared for vitiligo cases and 3 control groups (based on propensity score matching): (i) unaffected, (ii) PSO and (iii) AD. Further incidence and internal validity analyses will be presented at the meeting.

**Results:** A vitiligo prevalence of 0.2% was calculated for the year 2020, corresponding to approximately 144,855 SHI-insured persons in Germany.

A proportion of vitiligo patients comparable to PSO (15.7%) and AD (16.0%) had depression (14.2%) between 2014 and 2018 (vs. 11.1% of non-affected individuals).

Compared with (i) unaffected individuals, patients with vitiligo were significantly more likely to have connective tissue diseases, malignant neoplasms of the thyroid, and mental illness, among others. Compared with (ii) PSO, haemangiomas were more common. Compared with (iii) AD, psoriatic arthritis and polyglandular dysfunction were more common.

**Conclusion:** Vitiligo is still a poorly understood disease affecting a significant proportion of the population. It shows differences in comorbidities compared to PSO and AD, but has a comparable psychological burden.



#### Clinicodemographic Profile of Exfoliative Dermatitis at the Southern Philippines Medical Center from 2015-2019 A Five-Year Review

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Introduction & Objectives:

Erythroderma, also called exfoliative dermatitis is an inflammatory skin condition that affects more than 80% of the body's surface area and is characterized by diffuse erythema and scaling. To date, there have been no studies conducted in a tertiary government hospital in the Philippines on erythroderma/exfoliative dermatitis. Results from this study will help determine the clinical and epidemiologic characteristics of exfoliative dermatitis seen at the department of dermatology in a tertiary hospital in Davao City.

#### Materials & Methods:

This study employed a total population sampling, a type of purposive sampling technique to determine the sample size. Records of all patients with a diagnosis of exfoliative dermatitis in Southern Philippines Medical Center, department of dermatology from the specified time period were reviewed.

#### **Results:**

A total of 118 cases of exfoliative dermatitis were reviewed. The prevalence is 0.24% or 24 cases per 100,000 population dermatologic patients. There were 98 males and 20 females with a male-to-female ratio of 4.9:1. Preexisting dermatoses (88.1%) such as psoriasis vulgaris and contact dermatitis were the most common etiology identified. This was followed by drugs/medications (7.6%). There were three cases of idiopathic causes (2.5%). Two cases with an underlying malignancy (1.7%). Generalized scaling, erythema and pruritus were the most consistent features (100%). 40% and 35.6% had chills and fever, respectively. Systemic manifestations like joint pains (6.8%), lymphadenopathy (5%) and bipedal edema (5%) were likewise observed. The most commonly identified laboratory findings seen in patients with exfoliative dermatitis was anemia (45%). Psoriasiform dermatitis is the most common histopathologic diagnosis among patients with exfoliative dermatitis. All patients with exfoliative dermatitis were given emollients, topical steroids and antihistamines during the course of the disease. Twenty-one patients improved upon discharge (80.7%) while two patients went home against medical advice (7.7%). Three patients died during hospitalization (11.5%). Erythroderma was improving in all these three deaths. Most of the patients with exfoliative dermatitis (44.2%) further improved on follow-up, while the condition of forty-one outpatients (36.2%) was completely resolved while 18.6% of the patients were lost to follow-up.

#### **Conclusion:**

The prevalence rate of exfoliative dermatitis in Southern Philippines Medical Center from January 1, 2015-December 31, 2019 is 0.24%. This translates to 24 patients diagnosed with exfoliative dermatitis per 100,000 population.

Exfoliative dermatitis is a condition that is still more commonly found in older age groups and is more commonly observed among males. Pre-existing dermatoses like psoriasis vulgaris and contact dermatitis from injudicious use of herbal medications were the most common etiologic factors of exfoliative dermatitis in this study. The most commonly implicated drugs were antibiotics. All patients presented clinically with generalized erythema, scaling

and pruritus.

The most common treatments given were emollients, topical corticosteroids and antihistamines. With timely and proper diagnosis and management of erythroderma, the prognosis is generally good. Histopathologic features may not be specific for this condition but are of great importance in the determination of the possible underlying etiologies.

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### Prevalence and clinical characteristics of androgenic alopecia in Nepalese patients: a cross-sectional observational study

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#### Introduction & Objectives:

Androgenetic alopecia (AGA) is one of the commonest causes of hair loss in patients.

AGA has been associated with multimodal etiological factors along with systemic hyperandrogenic symptoms and exacerbation in cases post-covid infection, which we discuss here.

#### Materials & Methods:

All consenting male patients with AGA with intention to treat, presenting to our outpatient department from November 2021 to December 2022 were enrolled in this observational study. Clinical evaluation for AGA was done using Norwood and Hamilton grade in males, findings of which was corroborated using trichoscope concurrently. All participants were asked for their demographical profile, race, ethnicity, duration of AGA, trichodynia, symptoms of hyperandrogenemia such as hypertrichosis of trunk, preceding covid infection, was filled in a preformed proforma.

#### **Results:**

Mean age of patients, in our study of 304 patients, was 29 years. The most common type of AGA was Norwood Hamilton type 3 followed by grade 2 which was the second most common pattern and around one percent of patients showed female type AGA. Almost half of the patients enrolled in our study had disease duration of 1 to 5 years. The mean duration of AGA in our study was four years. Thirty seven percent of patients in our study had history of preceding covid infection.

#### **Conclusion:**

Along with genetic and hormonal predisposition, AGA has been linked indirectly with systemic comorbidities and exacerbations post covid infections.

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#### Abstract N°: 3353

#### Attitudes and behaviors regarding sun exposure of Israël Population

Bruno Halioua<sup>\*1</sup>, Charles Taieb<sup>2</sup>, Yaron Ben Hayoun<sup>2</sup>, Elie Cattan<sup>1</sup>, Bodokh Isaac<sup>1</sup>, Gilda Zerbib<sup>1</sup>, Catherine Baissac<sup>3</sup>, Marketa Saint Aroman<sup>3</sup>, Daphne Thioly.Bensoussan<sup>1</sup>, Aviv Barzilai<sup>4</sup>

<sup>1</sup>Dermatologist, <sup>2</sup>EMMA, <sup>3</sup>Pierre Fabre, <sup>4</sup>Sheba Medical Center, Sackler Faculty Of Medicine, Tel Aviv University.

#### Introduction & Objectives:

Israel is characterized as a subtropical and semi-arid climate with an average of 3304 hours of sunlight per year and an average of 9:02 hours per day. Numerous public health actions have been undertaken to change sun protection behaviors and attitudes to reduce sun exposure and prevent skin cancer in Israel since 1992, initiated by the Israel Cancer Association (ICA). According to the ICA, up-to-date data shows that Israel has dropped from ranking third in skin cancer cases, now ranking 13th. Limited information is available regarding sun protection behavior in patients in Israel. This study aimed to investigate the level of awareness of the risks related to sun exposure, attitude towards sun protection, and sun protection behaviour in Israel Population.

#### Material and methods

The population is representative of the Israeli population according to the quota method. The patients were asked to specify the times of exposure to the sun, the notion of knowledge of the recommendations of the public health experts who advise against exposure between 11 am & 4 pm, the reasons for which they were exposed to the sun at these times and the use or not of sun protection products. It was asked to specify the motivations given by the users and the justifications delivered by the nonusers of sun protection products.

#### Results

A population including 498 (49.8%) males & 502(50.2%) females. 16.7% of respondents reported no sun exposure & 53.3% respondents reported that they were exposed to the sun between 11 am & 4 pm. The most frequent reason for this risk behavior was that it corresponded to the most convenient hours for their activities (49.9%) and those when they were available (44.90%). Age less than 40 years is associated with a risk of exposure between 11 am & 4 pm (61.4% vs. 45.6%, p:0.00015) but not gender (Male 56.4% vs. Female 50.2%, p:0.41). 72.9% of the respondents declared being aware of public health experts' recommendations against exposure between 11 am & 4 pm. Respondents who exposed themselves between 11am & 4 pm were as well informed of these recommendations as other patients (71.1% vs. 74.9%, p 0.76). Of the respondents, 566/633 (67.90%) used sunscreen products during the sunniest period (20.4% every two hours). The motivation of those who use sun protection products is mainly the wish to limit the acceleration of skin aging (59.0%) and to reduce the risk of skin cancer (63.10%). On the other hand, the 267 (32.1%) respondents who do not apply sunscreen products explain their behavior by the fact that they do not think about it (50.9%).

#### Discussion

This is the premier study to assess sun exposure risk behaviors and sunscreen use in an Israeli population. Despite widespread dissemination of public health messages about sun protection, almost 53.3% of Israeli adults must protect themselves from sun exposure between 11 am and 4 pm. Interestingly, these high-risk skin cancer patients were as well informed about sun protection recommendations as other patients. This suggests the need for an additional education program among these high-risk skin cancer patients to change their behavior. Only 20.4% used sun protection products every 2 hours during the sunniest time. We have highlighted that the motivation of

those who apply sunscreen products is not only the desire to protect themselves from the risk of skin cancer but also from skin aging. Pursuing an effective education policy on the effective use of sun protection is essential. More targeted methods should be developed to prevent skin cancer.

#### Abstract N°: 3358

### Cycle irregularity, perimenopause and post-partum can influence self-perception of skin disorders and impact wellbeing: results of a worldwide epidemiological study

Philippe Martel<sup>\*1</sup>, Charles Taieb<sup>2</sup>, Christos Zouboulis<sup>3</sup>, Beatriz Santanna<sup>4</sup>, Claire Deloche<sup>4</sup>, Stéphanie Lerclerc-Mercier<sup>4</sup>

<sup>1</sup>nice, <sup>2</sup>EMMA, <sup>3</sup>Greece, <sup>4</sup>Vichy Laboratories

#### Introduction & Objectives:

Introduction: Impact of hormonal variations on skin disorders in women has been poorly studied. This worldwide epidemiological study describes self-perceived skin disorders in women at various stages of their hormonal life and across their menstrual cycle.

#### **Materials and Methods:**

Online interviews have been conducted using the Ipsos Access Panel with quota method applied to age, occupation, and region, from January to February 2023. 20.001 interviews have been conducted in 20 countries from 5 continents among representative samples of women aged from 18 to 55 years. Women were classified into mutually exclusive subgroups: menopausal (n=1463), perimenopausal (n=3918), post-partum that gave birth less then two years ago (n=1978) and active ovulation (n=13571), including regular (59%) and irregular (41%) cycles. Women were asked about 12 skin disorders (changes in pore dilation, skin shininess, skin paler, skin elasticity, skin tone, skin thickness, pigmentation spots or patches, wrinkles, redness, dark circles, flakiness), skin dryness and sensitivity, wellbeing, and their variations across the menstrual cycle when relevant.

#### **Results:**

Most women (91%) experienced at least one skin disorder. 61% of women with active ovulation complained that skin disorders were present or worsened at a certain time point of the cycle, mainly before or during menstruation (76%). Of note, three out of four skin disorders are present or worsen throughout menses, being pale skin, dark circles under the eyes and dull skin tone the three skin disorders most reported at this moment of the cycle (50%, 49% and 49% respectively). Interestingly, the peri-ovulation period seems to reduce self-perceived skin disorders. For perimenopausal women, skin disorders were significantly overrepresented (96% with at least one skin disorder). Conversely, they were underrepresented in the menopausal population (88% with at least one skin disorder). Skin disorders were significantly overrepresented among post-partum women as well: 93% of them experienced at least one skin disorder. From their perspective, the three most common skin disorders were dark circles, pore dilation and dull skin tone (67%, 57% and 56% respectively). Accordingly, women felt hormonal variations negatively impact their wellbeing in 72% of cases, being 82% in the perimenopausal group and 79% in the post-partum group.

#### **Discussion:**

The study showed a significant impact of hormone variations on skin disorders, across the women hormonal life and the menstrual cycle. Their prevalence increases in frequency mainly during the perimenopause, the premenstrual or menstrual stages of the cycle and post-partum, with parallel alteration of wellbeing. These periods in women's life deserve, therefore, special attention from the dermatologist and adapted cosmetic advice to address women needs related to their hormonal status. This is a request from the vast majority of women, paving the way to endocrinologic supportive skincare.

#### Abstract N°: 3425

### Full-time dermatological emergency unit at a tertiary hospital: epidemiology, reasons for consultation, diagnostic and therapeutic management.

Emilio Garcia-Mouronte<sup>\*1</sup>, Emilio de Dios Berna Rico<sup>1</sup>, Maria Belen De Nicolas Ruanes<sup>1</sup>, Carlos Azcárraga Llobet<sup>1</sup>, Luis Alfonso Pérez-González<sup>1</sup>, Jorge Naharro-Rodriguez<sup>1</sup>, Luis Alonso Martinez de Salinas<sup>1</sup>, Gerald Selda<sup>1</sup>, Ana Laura Melian Olivera<sup>1</sup>, Patricia Burgos Blasco<sup>1</sup>, Javier Perez-Bootello<sup>1</sup>, María González Ramos<sup>1</sup>, Daniel Hernandez-Calle<sup>1</sup>, Ruth del Cristo Cova-Martin<sup>1</sup>, Alba Lecumberri<sup>1</sup>, Pedro Jaen Olasolo<sup>1</sup>, Pablo Fernandez Gonzalez<sup>1</sup>, Montserrat Fernández Guarino<sup>1</sup>

<sup>1</sup>Ramón y Cajal Hospital, Madrid, Spain

#### **Introduction & Objectives:**

Cutaneous diseases comprise 8-10% of emergent consultations. Despite their high prevalence, dermatology inhouse calls are absent at most healthcare centres. The objective of this study is to describe epidemiological and clinical characteristics of patients attended at a full-time dermatological emergency unit of a tertiary hospital.

#### Materials & Methods:

A single-centre descriptive study was performed at a tertiary hospital, which provides specialised care for approximately 600,000 inhabitants in a metropolitan area. All patients assessed by our full-time dermatological emergency unit between 1st June 2022 and 31st July 2022 were included. 24-hour duty shifts were performed by 9 dermatology residents, supervised by a staff physician. The following variables were retrieved from their medical record: demographic data (sex, age), referral from other physician, daytime distribution, symptom severity and days since onset, diagnosis, diagnostic category, diagnostic tests, contact and/or respiratory isolation measures, type of treatment and ensuing medical conduct. Data were analysed using IBM SPSS Statistics for Windows.

#### **Results:**

A total of 1,316 patients were assessed (21.57 patients/day). The average age at the time of the visit was 49.08 ± 21.26 years. As for sex, 50.99% were women. 9.19% of patients were referred from general practitioners. Hospital staff members accounted for 5.55% of cases. A previously scheduled outpatient visit was detected in 13.98% of subjects. 39.06% of them were already receiving an active treatment for their reason of consultation. The heaviest caseload was recorded on Mondays (27.63 patients/day). 14.41% of patients were attended at night-time (10 pm-8 am). Median stage at our unit was 92 minutes. Only 3.19% of subjects were given a triage level 2 or 3 (Manchester system). Most patients (55.55%) complained of pruritus. Average self-perceived severity was 7.33/10 (EVA scale). Mean time from onset was 4 days. The diagnostic category with the highest prevalence were inflammatory conditions (47.19%). Arthropod bites were the most frequent diagnosis (11.32%). Secondary diagnoses were stablished in 28.5% of the subjects. Diagnostic tests were required in 28.5% of the cases, whereas biopsies were performed in 8.43% of them. Contact and/or respiratory isolation measures were needed in 6.91% of subjects. Corticosteroids were the most prescribed treatment (30.09%). Nevertheless, 22.72% of patients received no specific treatment. Patients were directly discharged in 52.81% of cases. As for error rate, 10.33% of patients received a wrong diagnosis.

#### **Conclusion:**

Most patients attended at our emergency department were quickly assessed and directly discharged, without

requiring diagnostic tests of further follow-up visits. Despite this good case-resolving ability, more studies are needed to confirm the cost-effectiveness of dermatology in-house call at tertiary institutions.



## Attitudes and behaviors regarding sun exposure of Australian Population : Data from the All Skins-All Colors-All Dermatoses: the ALL PROJECT:

Bruno Halioua<sup>\*1</sup>, Marketa Saint Aroman<sup>2</sup>, Catherine Baissac<sup>2</sup>, Yaron Ben Hayoun<sup>3</sup>, Charles Taieb<sup>3</sup>

<sup>1</sup>Dermatologist, <sup>2</sup>Pierre Fabre, <sup>3</sup>EMMA

#### Introduction & Objectives:

Australia has one of the highest rates of skin cancer in the world.. Overexposure to ultraviolet (UV) radiation is the leading cause of skin cancer in Australia. The aim of this study was to aims to investigate the level of awareness on the risks related to sun exposure, attitude towards sun protection and sun protection behaviour in Israel Population..

#### Material and methods

A representative sample of the Australian population over the age of 16 was selected using the quota method.

The questionnaire gathered information about the subject' demographic and socio-demographic profiles. Each were asked to specify the times of exposure to the sun, the notion of knowledge of the recommendations of the public health experts who advise against exposure between 11 am & 4 pm, the reasons for which they were exposed to the sun at these times and the use or not of sun protection products. It was asked to specify the motivations given by the users and the justifications delivered by the non users of sun protection products.

#### Results

A population of 2000 was identified, including 994 (49.7%) males and 1006(50.3%) females, respectively (mean age 44.04+/-16.87. (16-88 years). 42.6% reported sun exposure in the morning before 11 am, and 31.1% exclusively after 4 pm. 1084 (54.2%) respondents reported that they were exposed to the sun between 11 am & 4 pm.

The most frequent reason for this risk behavior was that it corresponded to the most convenient hours for their activities (58.8%) and those when they were available (38.1%). Age less than 40 years is associated with a risk of exposure between 11 am and 4 pm (60.0% vs. 49.4%, p:0,000388) but not gender (Male 55.5% vs. Female 52.9%, p:0.73). 80.3% of the respondents declared being aware of public health experts' recommendations against exposure between 11 am and 4 pm. Respondents who exposed themselves between 11:00 am and 4:00 pm were as well informed of these recommendations as other patients (65.4% vs. 65.4%, p 0,936299). Of the respondents, 1137/1639 (69.4%) used sunscreen products during the sunniest period (26.8% every two hours). The motivation of those who use sun protection products is mainly the wish to avoid sunburn (77.2%) and to reduce the risk of skin cancer (55.5%). On the other hand, the 502 (30.6%) respondents who do not apply sunscreen products explain mainly their behavior by the fact that they do not think about it.

#### Discussion

Our study evaluate both sun exposure risk behaviors and sunscreen use in an Australian population. Despite widespread dissemination of public health messages about the importance of sun protection almost 54.2% of Australian adults do not protect themselves from sun exposure between 11 am & 4 pm. It is interesting to note that these high-risk skin cancer patients were as well informed about sun protection recommendations as other patients. This suggests the need for an additional education program among these high-risk skin cancer patients to change their behavior. Only 26.8% used sun protection products every 2 hours during the sunniest time. We have highlighted that the motivation of those who apply sunscreen products is not only the desire to avoid sunburn and to protect themselves from the risk of skin cancer. Our study reported that patients do not apply sunscreen products most often because they do not think about it, It is important to pursue an effective education policy on the effective use of sun protection. More targeted methods should be developed to prevent skin cancer.



#### Attitudes and behaviors regarding sun exposure of Indian Population : Data from the All Skins-All Colors-All Dermatoses: the ALL PROJECT

Bruno Halioua<sup>1</sup>, Marketa Saint Aroman<sup>2</sup>, Catherine Baissac<sup>2</sup>, Yaron Ben Hayoun<sup>3</sup>, Charles Taieb<sup>3</sup>

<sup>1</sup>Dermatologist, <sup>2</sup>Pierre Fabre, <sup>3</sup>EMMA

#### Introduction & Objectives:

Solar ultraviolet radiation (UVR) is the most common environmental cause of the vast majority of skin disorders including skin cancer. Limited information is available regarding sun protection behaviour in patients in India . The aim of this study was to aims to investigate the level of awareness on the risks related to sun exposure, attitude towards sun protection and sun protection behaviour in Indian Population..

#### **Material and methods**

A representative sample of the Indian population over the age of 16 was identified using the quota method.

The questionnaire gathered information about the patients' demographic and socio-demographic profiles. The patients were asked to specify the times of exposure to the sun, the notion of knowledge of the recommendations of the public health experts who advise against exposure between 11 am & 4 pm, the reasons for which they were exposed to the sun at these times and the use or not of sun protection products. It was asked to specify the motivations given by the users and the justifications delivered by the nonusers of sun protection products.

#### Results

A population of 3000 was identified, including 1574 (52.5 %) males and 1426(47.5%) females, respectively (mean age 36.9+/-14.11. (16-88 years). 45.1% reported sun exposure in the morning before 11 am, and 21.6% exclusively after 4 pm. 1646 (54.9%) respondents reported that they were exposed to the sun between 11 am & 4 pm. The most frequent reason for this risk behavior was that it corresponded to the most convenient hours for their activities (59.5%) and those when they were available (43.7%).

Age less than 40 years is associated with a risk of exposure between 11 am and 4 pm (57.9% vs. 49.9%, p: 0,002173) but not gender (Male 53.5% vs. Female 56.4%, p:0.59). 69.7% of the respondents declared being aware of public health experts' recommendations against exposure between 11 am and 4 pm. Respondents who exposed themselves between 11 am & 4 pm were as well informed of these recommendations as other patients (71.5% vs. 67.9%, p 0. 0,405269). Of the respondents, 2222/2786 (79.8%) used sunscreen products during the sunniest period (33.5% every two hours). The motivation of those who use sun protection products is mainly the wish to avoid sunburn (63.1%) and to protect against accelerated skin aging (45.2%). On the other hand, the 502 (30.6%) respondents who do not apply sunscreen products explain mainly their behavior by the fact that they consider that the products are too expensive (33.0%) and the topical application tedious (27.7%).

#### Discussion

This is the first study to assess both sun exposure risk behaviors and sunscreen use in an Indian

population. Despite widespread dissemination of public health messages about the importance of sun protection almost 54.9% of Indian adults do not protect themselves from sun exposure between 11 am and 4 pm. It is interesting to note that these high-risk skin cancer patients were as well informed about sun protection recommendations as other patients. This suggests the need for an additional education program among these high-risk skin cancer patients to change their behavior. We have highlighted that the motivation of those who apply sunscreen products is mainly the wish to avoid sunburn and to protect against accelerated skin aging. It is important to pursue an effective education policy on the effective use of sun protection. More targeted methods should be developed to prevent skin cancer.

# EX CONGRESS BERLIN 11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 3666

#### Attitudes and behaviours regarding sun exposure of China Population: Data from the All Skins-All Colors-All Dermatoses: the ALL PROJECT

Bruno Halioua<sup>\*1</sup>, Marketa Saint Aroman<sup>2</sup>, Yaron Ben Hayoun<sup>3</sup>, Catherine Baissac<sup>2</sup>, Charles Taieb<sup>3</sup>

<sup>1</sup>Dermatologist, <sup>2</sup>Pierre Fabre, <sup>3</sup>EMMA

#### Introduction & Objectives:

Overexposure to ultraviolet (UV) radiation is the main preventable cause of skin cancer. Limited information is available regarding sun protection behaviour in patients in China. The aim of this study was to aims to investigate the level of awareness on the risks related to sun exposure, attitude towards sun protection and sun protection behaviour in China Population.

#### Material and methods

A representative sample of the Chinese population over the age of 16 was selected using the quota method.

The questionnaire gathered information about the patients' demographic and socio-demographic profiles. The patients were asked to specify the times of exposure to the sun, the notion of knowledge of the recommendations of the public health experts who advise against exposure between 11 am & 4 pm, the reasons for which they were exposed to the sun at these times and the use or not of sun protection products. It was asked to specify the motivations given by the users and the justifications delivered by the non-users of sun protection products.

#### Results

A population of 5000 was selected, including 2581 (51.6%) males and 2419(48.4%) females respectively (mean age 39.89+/-13.69. (16-89 years). 1934(38.7%) respondents reported that they were exposed to the sun between 11am and 4pm. The most frequent reason for this risk behaviour was that it corresponded to the most convenient hours for their activities (51.6%) and those when they were available (45.9%). Age less than 40 years (45.1%vs33.1%. p1,78E-14) and gender (Male 41.7% vs Female 35.4%, p :0 0,0006) are associated with a risk of exposure between 11 am & 4 pm. 44.4% of the respondents declared being aware of the recommendations of public health experts who advise against exposure between 11am & 4pm. Respondents who expose themselves between 11:00 am and 4:00 pm were as less informed of these recommendations as other patients (40.0% vs 47.2%, p 0,000131). Of the respondents, 3044 /3895(78.3%) used sunscreen products during the sunniest period (25.8% every two hours). The motivation of those who use sun protection products is mainly the wish to reduce the risk of sunburn (70.8%) and to limit the acceleration of skin aging (57.9%). On the other hand, the 845(21.7%) respondents who do not apply sunscreen products explain mainly their behaviour by the fact that they do not think about it (35.3%).

#### Discussion

This is the first study to assess both sun exposure risk behaviours and sunscreen use in a representative China population. Despite widespread dissemination of public health messages about the importance of sun protection almost 38.7% of China adults do not protect themselves from sun exposure between &. It is interesting to note that these high-risk skin cancer patients were as well informed about sun protection recommendations as other patients. This suggests the need for an additional education program among these high-risk skin cancer patients to change their behaviour. Only 25.8% used sun protection products every 2 hours during the sunniest time. We have highlighted that the motivation of those who apply sunscreen products is the wish to reduce the risk of sunburn and to limit the acceleration of skin aging. Our study reported that patients do not apply sunscreen products most often because they do not think about it.. It is important to pursue an effective education policy on the effective use of sun protection. More targeted methods should be developed to prevent skin cancer.

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## Isotretinoin and the risk of inflammatory bowel disease and irritable bowel syndrome- A large-scale global study

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#### **Introduction & Objectives:**

Risk of inflammatory bowel disease (IBD) under isotretinoin is a scope of a long-standing controversy. The burden of isotretinoin-related irritable bowel syndrome (IBS) has not been investigated.

We aimed to evaluate the risk of Crohn's disease (CD), ulcerative colitis (UC), and IBS in patients with acne starting isotretinoin versus oral antibiotics treatment.

#### Materials & Methods:

A global population-based retrospective cohort study assigned two groups of patients with acne initiating isotretinoin (n=77,005) and oral antibiotics (n=77,005). Comprehensive propensity-score matching was conducted.

#### **Results:**

The lifetime risk of CD (hazard ratio [HR], 1.05; 95% confidence interval [CI], 0.89-1.24; P=0.583) and UC (HR, 1.13; 95% CI, 0.95-1.34; P=0.162) was comparable between study groups, whereas the lifetime risk of IBS was lower in isotretinoin-prescribed patients (HR, 0.82; 95% CI, 0.76-0.89; P<0.001). In time-stratified analysis, isotretinoin-related risk of UC was significantly increased during the first 6 months following drug initiation (HR, 1.93; 95% CI, 1.29-2.88; P=0.001), but decreased afterward to level the risk of the comparator group. The absolute risk difference within the first 6 months was clinically marginal (5.0 additional UC cases/10,000 patients starting isotretinoin; 95% CI, 2.5-7.7).

#### **Conclusion:**

Isotretinoin does not confer an elevated risk of CD, whilst it might be associated with a slight and transient increase in UC risk.

## EX CONGRESS BERLIN 11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 4032

## Humanitarian Assistance for Pakistan Flood in 2022: Role of Dermatologists from Indonesia and Report of Skin Problems

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#### Humanitarian Assistance for Pakistan Flood in 2022: Role of Dermatologists from Indonesia

#### and Report of Skin Problems

#### Introduction & Objectives:

On June 2022, Pakistan was hit by massive flood and internally displacing about 32 million people, causing 1.486 deaths and at least 3.641 suffer with poor health conditions. This sudden catastrophic event has caused Pakistan government to seek help to G-77 and United Nations countries, including Indonesia. Along with other healthcare professionals, two dermatologists was sent as a humanitarian support. We report not only the preparation conducted by dermatologists before and during the assistance, but also skin problems found in refugee camps.

#### Materials & Methods:

Started from September 2022, two dermatologists and other healthcare professionals prepared logistics and organized team agendas. Between 7 October and 2 November 2022, dermatologists evaluated patients who complained of skin problems at refugee camps in Mirpur Khas district, Pakistan.

#### **Results:**

Logistics preparation include medications and medical devices not only from dermatology field but also other specialties as well. Healthcare team divided into registration, health examination by doctors, pharmacy, and public health. The total number of patients that presented during the study period was 235 (131 males and 104 females), and they had a total of 265 skin problems. In terms of age distribution, most subjects were in their fourth decade (23.0%). The most prevalent skin problems were infections–infestations (32.5%), followed by eczemas (29.8%) and traumatic skin disorders (29.4%). The great majority of infection–infestation cases involved superficial fungal infections.

#### **Conclusion:**

Dermatologists' role in a humanitarian assistance events is not only to examine victims but also prepare logistics and organize team needed at refugee camps. Unhygienic conditions, exposure to a hazardous environment and contact with various objects during and after the tsunami probably increased the prevalence of infectionsinfestations, traumatic skin disorders and contact dermatitis. To prevent these problems and associated secondary bacterial infections, health-related education and early medical management are required.

## EX CONGRESS BERLIN 11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 4060

## Importance of the touch in the consultation of dermatology : Data from the All Skins-All Colors-All Dermatoses: the ALL PROJECT

Bruno Halioua<sup>\*1</sup>, Christelle Le Roux-Villet<sup>2</sup>, Marketa Saint Aroman<sup>3</sup>, Catherine Baissac<sup>3</sup>, Yaron Ben Hayoun<sup>4</sup>, Charles Taieb<sup>4</sup>, Richard Marie-Aleth<sup>5</sup>

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#### **Introduction & Objectives:**

Over the past 50 years, there has been a shift from the traditional physician-centered approach to a more patientcentered approach. Touch is involved in establishing the doctor-patient relationship and plays an important role in patient satisfaction. The objective of this study was to evaluate the prevalence of touching during dermatology consultations and to establish the link between touching and satisfaction with dermatological care as well as adherence to treatment. \*\*

#### Materials & Methods:

The ALL PROJECT involves 50,552 individuals, representative of the populations of 20 countries spread over all continents. In each country, the population-based study was conducted on representative and extrapolated samples of the general population aged over 16. The questionnaire remained focused on patient experience. It gathered information on demographics, any dermatological condition occurring in the past 12 months, type of physician, satisfaction with care, and assessment of compliance. Physician Touch (PT) patients were those who reported having been touched by their physician on the affected skin area at least once during their last consultation. Student's t test and Pearson's Chi-squared were performed to compare PT and no-PT subjects. \*\*

#### **Results:**

Among the population of 50,552 individuals, 10512 agreed to answer the questions with respectively 4529 (43.1%) males and 5983 (56.9%) females (mean age 40.9, +/-15.2). 7180 (68.3%) of them reported being PT patients while 2594 (24.7%) were no-PT ones. 738 (7.0%) did not remember. No-PT prevalence was significantly higher in Australia than in other continents. Reasons given by no-PT patients explaining the lack of touch were modesty (n=185, 7.1%), a lack of necessity (n=1871, 72.1%), disgust (n=81, 3.1%), embarrassment (n=184, 7.1%), or unknown ones (n=407, 15.7%). Compared to European patients, South East Asians and Indians more frequently used modesty (SE Asia 10.6% vs Europe 4.3%. p  $\leq$  0.05, India 14.7% vs Europe 4.3% p  $\leq$  0.05) and embarrassment (SE Asia 10.2% vs Europe 4.2% p  $\leq$  0.05, India 16.5% vs. Europe 4.2% p  $\leq$  0.05) to explain no-PT. The prevalence of no-PT vs PT was significantly higher in women (28.5% vs 24% p  $\leq$  0.05). Age or type of dermatoses such as atopic dermatitis/eczema, psoriasis, acne and rosacea was not a predictor of no-PT. No-PT prevalence was significantly lower in cases of vitiligo and hyperpigmentation and it was more frequently reported in those treated by general practitioners (GPs) than by dermatologists (28.5% vs 22.4%, p  $\leq$  0.05). It was significantly lower among surgeons and allergists than among GPs and dermatologists. Compared to PT patients, no-PT ones more frequently reported a feeling of dissatisfaction with their physician's care. Tiredness of taking a treatment was higher in no-PT (25.1% vs. 17.5%, p  $\leq$  0.05).

#### **Conclusion:**

This first study evaluating the prevalence of touching in skin diseases, showed that about one patient out of 4 is not touched during a dermatological consultation. Compared to Europeans, South and SE Asians more frequently

explained no PT by the different cultural context. The higher prevalence of no-PT among women could be explained by the fear of misinterpretation of touch. Our study underlined the importance of touch in the dermatological examination not only in helping to establish the diagnosis but also as a positive component of non-verbal communication. It is an important factor to consider in the era of teleconsultation.

## ECONGRESS BERLIN 11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 4283

#### **Bullous autoimmune diseases in Northern Mexico**

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#### Introduction & Objectives:

Epidemiology of bullous diseases may vary due to ethnicities. Most cases of pemphigus worldwide include pemphigus vulgaris (PV) and pemphigus foliaceus (PF). Most cases of PV occur in Europe and North America while PF occurs mostly in South America and Northern Africa. Incidence for bullous pemphigoid is elevates with aging, this is the reason why people older than 80, is 150-330 per 1 million people per year. In Latin America, there is scarce information regarding epidemiologic studies; specifically in Mexico, previous reports show that BP is the most common blistering disease.

In this report we describe the types of pemphigus encountered in a population of northern Mexico of our Dermatology Department and the rest of the world.

#### Materials & Methods:

We gathered information from our database of the Dermatology Department from 2013 to 2022. We included all autoimmune blistering diseases (pemphigus and pemphigoid diagnoses).

#### **Results:**

We analyzed a total of 101 patients with an autoimmune bullous disease diagnosis. Pemphigus vulgaris was the most encountered, as what has been previously reported worldwide. In Europe and Japan, it is more prevalent in women of 57 to70 years of age. In our patient population we encountered more men in a 2:1 ratio, this was similar to the ratio female/male 1:3 of Asia data such as Bangladesh reports.

Regarding bullous pemphigoid our data demonstrate that it occurred in both genders equally around the ages of 35 to 93. Most of our patients were 81 years old at the age of diagnosis. This variant is the most common blistering disease in Europe and North America. Extensive studies demonstrate that bullous pemphigoid is more frequent in women with a ratio of 1:49 in Europe similar to the worldwide data.

In our population, PF was not as common. We had cases mainly in females, like the European population. In Asia, it was more frequently found in men (female/male ratio of 1:12).

Other less frequent types of bullous disease we encountered included paraneoplasic pemphigus and pemphigus gestationis. These types of pemphigus had a low prevalence in Europe and Asia as well same as Northern of Mexico.

#### **Conclusion:**

This small Hispanic series intends to provide more information epidemiology in these patients. In our series we encountered PV as the most frequent form of pemphigus with a prevalence in men and exhibits a variable epidemiology on a global scale.

The prevalence of BP is higher on Europe. Different from our population, which presents the disease to a lesser

extent and has not gender predominance.

We hope to encourage the report of pemphigus cases in Latin America in line with the scale reported by other countries for the benefit of our patients.

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## A comprehensive analysis of global skin cancer incidence and mortality with a focus on dermatologist density and population risk factors

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**Introduction & Objectives:** Melanoma and Non-Melanoma Skin Cancers (NMSC), such as Squamous Cell Carcinoma (SCC), Basal carcinoma (BCC), and Merkel Cell Carcinoma (MCC), pose a global health burden. This study assesses global skin cancer epidemiology, emphasizing incidence, mortality, risk profiles, and dermatologist density's impact.

**Materials & Methods:** Using WHO International Agency for Research on Cancer (IARC) data, we conducted an epidemiological analysis of skin cancer. Our study focused on melanoma risk in immunocompromised individuals, genodermatosis (albinism and xeroderma pigmentosum (XP)), the elderly (65+), outdoor occupational exposure, indoor tanning practices, and skin color. We also examined the correlation between dermatologist density and incidence/mortality rates. Due to limited robustness of incidence data, only mortality data were considered for NMSC. By mapping melanoma incidence and mortality-to-incidence ratios relative to dermatologist density, we developed an indicator to assess healthcare system efficiency in managing melanoma.

**Results:** In 2020, global melanoma incidence was 324,635, resulting in 57,043 deaths. Europe bears the heaviest burden with 150k cases and 26,360 deaths. Africa had the highest mortality-to-incidence ratio (0.25 vs 0.026 for Europe), indicating a higher probability of melanoma-related mortality. Key 'at risk' populations: elderly (RR: 8.5), organ transplant recipients (RR: 8), fair skin (RR: 5.7), and XP (RR: 2000). Outdoor workers face a higher risk of NMSC compared to Melanoma. NMSC, despite lower mortality likelihood, led to 63,731 deaths in 2020 due to significantly higher incidence. Even countries with a high proportion of dark phototypes are not immune to the risk of death from skin cancer, as demonstrated by the registered 11,281 deaths in Africa. Among 59 countries with data, dermatologist densities varied widely (0.33 per 100k in Pakistan to 15.15 in Greece), with no linear correlation to wealth or melanoma incidence. Mapping revealed high skin cancer incidence in countries with fair-skinned and elderly populations: USA, Germany, UK, France, Australia, and Italy. Conversely, low dermatologist density countries (India, China, Turkey, Korea, Morocco) showed higher mortality-to-incidence ratios. Japan, Russia, and Argentina had high ratios despite high dermatologist density. Australia, the UK, and Canada maintained low ratios despite fewer dermatologists.

**Conclusion:** Our findings emphasize the need for enhanced melanoma awareness, early detection, and patient education, especially in vulnerable populations and countries with high mortality-to-incidence ratios. Australia, UK, and Canada demonstrate a different approach to skin cancer management, with lower ratios despite fewer dermatologists. The involvement of other healthcare professionals, such as general practitioners may partially explain this success. Education on photoprotection and early access to healthcare professionals for at-risk groups (fair-skinned, elderly, immunosuppressed, genodermatosis) are crucial for improving melanoma survival. NMSC, with increasing incidence and substantial mortality, require improved surveillance through national registries. Further investigations are necessary to identify factors contributing to effective skin cancer management in specific countries. C1 - Internal use

C1 - Internal use



## **E** CONGRESS **BERLIN** 11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

### Abstract N°: 4365

#### Evaluation of dermatology knowledge in the emergency room for interns

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#### Introduction & Objectives:

The medical intern, as the pivot of our emergency system, is brought almost daily to diagnose and manage different pathologies. The management of dermatoses occupies an increasingly important place in the daily routine of emergency room consultations. The objective of our study was to evaluate the knowledge of the interns in the emergency rooms and their behaviors towards patients consulting for dermatological lesions.

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

We conducted a descriptive cross-sectional study, and an anonymous questionnaire was designed with Google Forms software and sent to 160 first and second year interns.

#### **Results:**

132 responded to the form. 25% felt that they did not have sufficient knowledge of dermatology to properly manage their patients, while 62.1% said they had some knowledge. 51.5% had already done a training course in dermatology. 78.6% considered that this training course was useful. For the rest, the difficulties encountered were firstly stress during the exam period (52%), followed by the lack of supervision (38%) and then the fear of approaching the patient (10%). During an emergency shift, 53% of the physicians had seen a dermatology patient occasionally, which is 10 to 30% of the patients. 53% had requested a specialist opinion. 80.3% of the physicians considered dermatology as a more difficult specialty compared to others. This difficulty was due to the semiological recognition of lesions (32.6%), as well as the therapeutic management (65.9%). 76.5% stated that they had difficulty recognizing the diagnosis. 28.8% said they could always tell the difference between an urgent and non-urgent request. For the 69.7% who hesitated, 95.9% sought specialized advice. 91.7% stated that they knew how to apply the knowledge gained from previous consultations to new patients. For 67.4%, the diagnosis suggested by the intern was often the one retained by the physician on call. Regarding the learning of the interns, 65.9% acknowledged that they easily remembered the diagnoses through the images. Moreover, through the clinical cases included in the questionnaire, we noted that a specialized opinion was requested in most situations.

#### **Conclusion:**

The originality of this work is twofold: on the one hand, to draw up a state of knowledge in dermatology of the interns and question them about their training, and on the other hand, to elaborate practical charts and algorithms in order to improve the quality of care for patients presenting for dermatological conditions.

Therefore, knowledge and management of the syndromic approach remain necessary weapons in the management of dermatoses in the emergency department, and must be mastered.

## ECONGRESS BERLIN 11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 4381

## Performance assessment of the SUNTRAC skin cancer risk prediction tool for posttransplant melanoma in solid organ transplant patients

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<sup>14</sup>Virgen del Rocío University Hospital, Sevilla, Spain

#### Introduction & Objectives:

Solid organ transplant recipients (SOTR) face an increased risk of developing skin cancer. The SUNTRAC (Skin and Ultraviolet Neoplasia Transplant Risk Assessment Calculator) tool has been developed to identify and screen SOTR at higher risk for skin cancer. However, the tool's performance in predicting posttransplant melanoma risk, specifically, remains uncertain as it primarily relied on keratinocyte carcinoma (KC) data. Consequently, the objective of this study is to evaluate the performance of the SUNTRAC tool in providing accurate screening times for the early detection of posttransplant melanoma.

#### Materials & Methods:

This multicentric retrospective external validation study involved a cohort of 83 white race solid organ transplant recipients (SOTR) from tertiary care hospitals in Spain with post-transplant melanoma diagnosis. The performance of the SUNTRAC tool for providing adequate screening times for this neoplasm was assessed through survival analysis methods.

#### **Results:**

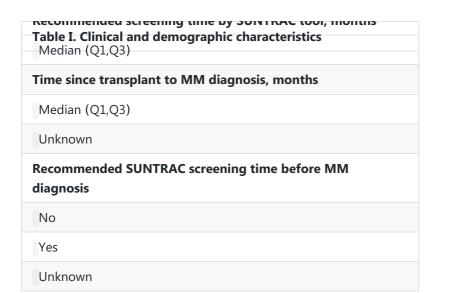
Sixty-seven patients (80.7%) were allocated to the Medium Risk group, nine (10.8%) to the High Risk group and seven (8.4%) to the Very High Risk group, no patients were allocated to the Low Risk group. Median time from first transplant until melanoma diagnosis was 73 months. If the SUNTRAC recommendations had been followed, the recommended screening time would have preceded the date of melanoma diagnosis in 84.1% of cases. For individuals diagnosed with melanoma before the recommended screening time, a median delay of 10 months would have been observed. Based on the variables included in the SUNTRAC tool, being aged 50 or older at the time of transplant was found to be significantly associated with an increased risk of posttransplant melanoma (Hazard ratio (HR): 2.56, 95% CI: 1.42-4.61, p-value: 0.002). Interestingly, while a history of skin cancer did not emerge as a significant risk factor, a personal history of melanoma proved to be significant (HR: 4.20, 95% CI: 1.24-14.2, p-value 0.021). Moreover, our study revealed that an increase in one point of the SUNTRAC score was associated with increased posttransplant melanoma risk (HR: 1.11, 95% CI: 1.03-1.19, p-value 0.004).

#### **Conclusion:**

Our results suggest that the SUNTRAC tool's screening recommendations are adequate for posttransplant melanoma as this neoplasm usually appears later than KC. However, additional studies involving more racially diverse cohorts are necessary to validate and reinforce our results.

Table I. Clinical and demographic characteristics
Sex
Female
Male
Age at first transplant, years
Median (Q1,Q3)
Age diagnosis first MM
Median (Q1,Q3)
Type transplant
Heart
Kidney
Liver
Lung
Thoracic transplant
No
Yes
Age at first transplant >= 50y
No
Yes
White race
Yes
Skin cancer history before transplant
No
Yes
SUNTRAC points
Median (Q1,Q3)
SUNTRAC risk group
Low Risk
Medium Risk
High Risk
Very High Risk
Peronmanded careening time by SLINTPAC tool months

Perommended screening time by SUNTPAC tool months



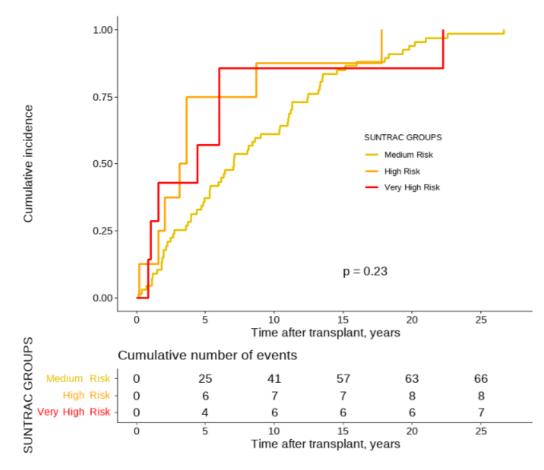


Figure 1. Post-transplant melanoma cumulative incidence by SUNTRAC group. P-value from log-rank test.

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#### Toxic epidermal necrolysis in Slovenia - how good are we at reporting it?

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#### Toxic epidermal necrolysis in Slovenia - how good are we at reporting it?

#### **Introduction & Objectives:**

Toxic epidermal necrolysis is part of a spectrum of severe mucocutaneous reactions characterized by bullae and epidermal detachment, with the overall reported mortality rate exceeding 30%. It is most commonly triggered by drugs, less frequently by infections, vaccinations, and malignancies. In up to 30% of patients, no cause is found. The reaction usually occurs one to three weeks after the offending treatment has been initiated, and the possibility of development likely being restricted to the first eight weeks. The incidence is higher in HIV-infected individuals and in patients with immunological and malignant comorbidities. Genetic predisposition also plays a significant role. Patients are typically admitted to a regular hospital ward, an intensive care unit, or a burn unit. Studies have suggested that the prognosis of patients with toxic epidermal necrolysis is better if they are hospitalized in an intensive care unit or a burn ward from the outset.

The objective of this study was to determine the proportion of reported adverse reactions to the appropriate authorities in our country and to calculate the annual incidence per million inhabitants based on the obtained data.

#### Materials & Methods:

In Slovenia, adverse reactions to medicinal products are reported through an online or paper form published on the website of the Agency for Medicinal Products and Medical Devices of the Republic of Slovenia. The collected data was gathered from reports of toxic epidermal necrolysis-type reactions from 2017 to 2022. During this period, six patients (four females and two males) were reported, including four adults, one adolescent, and one child. The suspected offending drugs included tyrosine kinase inhibitors, allopurinol, methotrexate, cephalosporins, remdesivir, PD-1 inhibitors, recombinant human erythropoietins and non-steroidal antirheumatic drugs. Two cases were fatal, one patient recovered, and three outcomes were reported as unknown. This is likely because the report was made early after the occurrence of the reaction.

#### **Results:**

According to published literature, the incidence of toxic epidermal necrolysis is estimated to be between 1 and 2 per million people per year. Our study found that the reported incidence in our country ranged from 0 to 1.9 cases per million inhabitants per year for the period in question.

#### **Conclusion:**

We can probably conclude that not all cases of toxic epidermal necrolysis are reported through official forms in our country. The reported rate for Steven Johnson syndrome has not been included in this report, but we believe it to be significantly lower, given that milder cases are often unrecognized. It is important to instill a culture of reporting among healthcare personnel, as it can greatly enhance the anticipation and identification of these rare, but potentially fatal, reactions.

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#### **BERLIN** 11-14 OCTOBER 2023

EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 4959

#### Psychiatric conditions in Darier's disease and Hailey-Hailey disease and Darier's disease; a cohort study

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Psychiatric conditions in Darier's disease and Hailey-Hailey disease and Darier's disease; a cohort study

#### **Introduction & Objectives:**

Darier disease (DD) and Hailey-Hailey disease (HHD) are severe hereditary dermatological disorders with mutations affecting all cells, making them prone to exhibit extracutaneous symptoms. This study aims to assess broad psychiatric conditions in these individuals.

#### Materials & Methods:

We conducted a cohort study based on the linkage between Swedish national registers, the Total Population Register, the National Patient Register, and the Prescribed Drug Register. A total of 935 individuals with DD and 342 individuals with HHD were identified and matched with 100 comparison individuals, each randomly selected from the general population. Statistical analyses were performed as conditional logistic regressions with associations expressed as odds ratios and corresponding 95% confidence intervals.

#### **Results:**

Compared with individuals without DD, individuals with DD had an excess risk of being diagnosed with an anxiety disorder (RR 1.8, CI 1.5;2.3), depression (RR 2.0, CI 1.6;2.5), prescribed anxiolytics (RR 2.0, CI 1.7;2.4), antidepressants (RR 1.3, CI 1.1;1.6), but not sedative/hypnotics (RR 1.9, CI 0.9;1.3). Individuals with HHD had no excess risk of being diagnosed with an anxiety disorder (RR 0.9, CI 0.5;1.5) or depression (RR 0.9, CI 0.5;1.4) but had an elevated risk of being prescribed anxiolytics (RR 1.7, CI 1.3;2.2), but not antidepressants (RR 1.1, CI 0.8;1.4), or sedative/hypnotics (RR 1.0, CI 0.8;1.3).

#### **Conclusion:**

We, therefore, propose that there are indications that patients with DD should be assessed psychiatrically.

# EVERIN 11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 4970

#### Diversity and inclusion in dermatology: a worldwide profiling of sensitive skin

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#### Introduction & Objectives:

Sensitive Skin Syndrome (SSS), which was recently reported to affect up to 70% of the population, is defined as cutaneous hyperreactivity to otherwise innocuous stimuli, and expresses by unpleasant sensations and features (itching, tingling, burning, pain, redness etc.), with normal or erythematous appearance. Though not well studied, SSS results in altered behaviors, habits, sleep disorders, fatigue, stress/anxiety, seriously affecting people's QoL. To better characterize SSS, an international profiling survey was purposefully disseminated intended to elucidate commonalities across the world and underscore distinct regional differences related to the physiological, psychological, sociocultural, lifestyle or environmental instigators/exacerbants.

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

An online survey was disseminated across 5 continents and 7 countries: United States, Brazil, Germany, China, India, Philippines, and Australia, with 10,566 respondents (~ 1500/country). To achieve a nationally representative sample for each country, demographic quotas were implemented. Additionally, nationally representative quotas for regions were set for Australia, Brazil, India, Philippines. In Germany, the Nielsen region quotas, in China tiers and in the US, regional and ethnicity quotas were used. Data on demographic characteristics, environmental and climatic factors, skin characteristics, dermatological disorders, cosmetics use etc. were collected. The 95% confidence interval was used for the data analysis.

#### **Results:**

Global prevalence of SSS was about 40%, except in India and China, which scored respectively the highest and lowest (62% vs 28%). Of importance, concurrent dermatologic disease was reported by ~ 60% of those reporting with SSS.

While SSS was reported by respondents to affect all body locations, the face was reported higher (44% vs 35% on the body). Environmental factors were identified as the main triggers, notably temperature changes as number 1 by 41% of the responders surpassing cosmetics (reported by 19%).

When stratified by skin type, individuals with darker skin tone declared highest perceived SSS (61% vs 49% for darkest vs lightest respectively). Among symptoms, itching was most frequently experienced by 54% of the respondents while being negatively correlated with severity, whereas general discomfort and heat sensation drive severity, but were experienced less frequently (18% and 19% respectively).

#### **Conclusion:**

This is the largest and most widely disseminated survey targeting individuals impacted by SSS. The prevalence of SSS does vary by country, with some variance with respect to the most affected anatomic sites as well as symptoms and exacerbants, but overall impacts 40% of the global population. A variety of host-related factors and climate elements contribute to the perception and definition of SSS. These global data will both encourage

future, inclusive research aimed at improving both our understanding of the pathophysiology of SSS as a unique dermatologic disease and the experience of the broad and extensive patient population suffering from SSS.

## **E CONGRESS BERLIN** 11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 4971

## Geographical variations in the correlation between PASI and DLQI among patients with psoriasis - a Global Healthcare Study on Psoriasis (GHSP)

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**Introduction & Objectives:** The impairment of life quality in patients with psoriasis is quantified by the Dermatology Life Quality Index (DLQI), and the severity of symptoms are evaluated with the Psoriasis Area and Severity Index (PASI).

To investigate the correlation between PASI and DLQI and compare the correlation in different geographical areas.

**Materials & Methods:** Our Global Healthcare Study on Psoriasis (GHSP) is a cross-sectional study, involving multiple different medications and international data from Switzerland, Latin America (Brazil and Chile), Asia (China and Singapore), and United States were utilized.

Correlations between PASI and DLQI were evaluated using a non-parametric Spearman's rank correlation tests and further analyzed with quantile regression.

**Results:** Our study comprised 1134 patients with a median (IQR) PASI of 6.0 (3.0, 12.0) and median (IQR) DLQI of 8.5 (4.0, 15.0).

We demonstrated a significant correlation between PASI and DLQI with a correlation coefficient of P=0.533 (p<0.001) overall, and stratified by location: P=0.544 (p<0.001) for Latin America, P=0.472 (p<0.001) for Switzerland, P=0.447 (p<0.001) for Asia, and P=0.414 (p=0.004) for United States.

Quantile (median) regression yielded coefficients of 0.750 [0.619, 0.881] for Switzerland, 0.500 [0.417, 0.583] for Latin America, 0.338 [0.164, 0.511] for Asia, and 0.307 [0.082, 0.532] for United States.

#### **Conclusion:**

We showed a significant correlation between PASI and DLQI among patients in all included geographical locations, with the strongest correlation in Latin America and the weakest in United States. Furthermore, the median DLQI is expected to increase significantly more with PASI in Switzerland compared to all other included geographical areas.



## Epidemiological study on the risk of developing sleep disorders and fatigue in children with inflammatory skin diseases based on US healthcare data

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#### **Introduction & Objectives:**

Sleep disturbances in children with atopic Dermatitis (AD) and psoriasis (PSO) remain poorly evaluated.

#### Materials & Methods:

Here, we present a retrospective data analysis of the last 20 years of an US Collaborative Network including children of 55 Health care providers (HCO). In total, 282.150 children with AD, 41.983 children with PSO age 5-17 were included and compared to a matched healthy control group. A risk analysis for the incidence of a comorbidity, such as sleep disturbances and fatigue, within 5years after initial diagnosis of the skin disease was performed

#### **Results:**

The mean age for AD was 9.1 (+/- 3.7 SD), 52.5% were female, 66% were not hispanic or latino, 39% White, 32.2% Black or African American. The mean age for PSO was 11.7 (+/- 3.7 years SD), 62.5% were not hispanic or latino, 70.1% White, 9.8% Black or African American. Obesity, which was diagnosed in 7.5% of AD and 7.6% of PSO children, was defined as a confounding variable.

In the AD cohort, no risk difference between onset of fatigue and the diagnosis of unspecified sleep disorders was seen, however a higher risk of development of sleep apnea was noticed. PSO children were also more likely to be diagnosed with insomnia (OR 1.18), "hypersomnia" (OR 2.58) and "sleep disorders" (OR 1.26-1.74), , fatigue (OR 1.29), or weakness "sleep apnea" (OR 1.46-1.73), In the psoriasis cohort, children were also more likely to be diagnosed with anxiety disorders.

#### **Conclusion:**

Especially children with psoriasis were at a higher risk for new diagnosed sleep disorders, including sleep apnea, as well as fatigue and anxiety disorders compared to healthy controls. This implicates, that monitoring is of great importance in order to initiate timely countermeasures for prevention of potential mental and physical consequences and secure improved quality of life.

### **EA CONGRESS DV BERLIN** 11-14 OCTOBER 2023

EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

#### Abstract N°: 5541

#### Impact of the COVID-19 pandemic on sexually transmitted infections in Granada

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#### Introduction & Objectives:

The COVID-19 pandemic and the preventive measures adopted in Spain led to a reduction in the accessibility to health care. At the national level, an upward trend of sexually transmitted infections (STIs), with one of the highest incidence rates in the world. of the highest incidence rates in Europe. Undiagnosed STIs lead to high long-term morbidity and even death. long-term morbidity, and to date, the impact of the pandemic on the diagnosis and management of STIs has not been studied in depth. impact of the pandemic on the diagnosis and management of STIs in our area has not been studied in depth. The objective of this study was to evaluate the impact of the COVID-19 pandemic on the number of patients seen, the diagnoses made and the clinical diagnoses made and the clinical-demographic profile of the users of the STI Center of Granada. Granada

#### Materials & Methods:

Retrospective cohort study. We analyzed and compared trends in the sociodemographic the sociodemographic profile of users, the performance and positivity of diagnostic tests and the treatments administered. diagnostic tests and treatments administered from March to August before and after the declaration of the state of alarm. after the declaration of the state of alarm in Spain (March 15, 2020).

#### **Results:**

581 episodes were collected from the STI consultation in this period, of which. 62.93% (365) belonged to the prepandemic period and 37.07% (215) to the pandemic period. The 67.76% (394) of the patients were male and the mean age was  $31.93 \pm 10.23$  years. A reduction of 41% in the number of patients was observed at There was a 41% reduction in the number of visits to the STI center in the period analyzed with an increase of 4.74% and 1.00% in the number of visits to the STI center in the period analyzed. 4.74 and 1.14 increase in the use of chemsex and contact applications, respectively. Likewise, compared to the pre-pandemic period, there was an increase in the detection of gonococcus in the urethra, hepatitis A and syphilis. hepatitis A and syphilis, exclusively in women who have sex with men.

#### **Conclusion:**

The COVID-19 pandemic has altered the epidemiology and risk behaviors associated with STIs associated with STIs, although the patient profile has remained stable. However, analysis of the entire pre-pandemic period is However, analysis of the entire pre-pandemic and pandemic period is needed to draw more solid conclusions..



#### Ethnicity and migration: characteristics of patients seen in a dermatological out-patient clinic in Malmö, Sweden

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#### Introduction & Objectives:

Migration is an increasing phenomenon and associated with a physical and psychosocial burden on individuals. Little is known about migration and skin health. The aim of this study is to describe the characteristics of patients regarding migration background and dermatological morbidity among adults seen in a dermatological outpatient clinic in Malmö, Sweden.

#### Materials & Methods:

This is an observational cross-sectional study. Consecutive dermatological outpatients at Skane University Hospital Malmö were on random days between September and November 2017 invited to participate in the study. Inclusion criteria were being over 18 years and able to read and write the language of included questionnaires, that were available in 12 languages. All patients were examined clinically by a dermatologist.

Sociodemographic variables including ethnicity and migration status were assessed by self-report. Ethnicity was assessed with country of birth and patients were categorized into foreign-born (FB) and non-foreign born (NFB)

*General and physical health* and details about skin disease were self-reported. *Stress* was assessed by the Perceived Stress Scale (PSS) and with items assessing stressful life events and economic difficulties.

*Depression and anxiety* were assessed with The Patient Health Questionnaire-2 (PHQ-2) and The General Anxiety Disorder Assessment-2 (GAD-2). The study was ethically approved.

#### **Results:**

250 patients were included and 24% were FB. The FB reported 41 different countries of birth, 57.4% in Europe, 19.7% in the Middle East and North Africa, 8.2% in Sub-Saharan Africa, 6.6% in Central and South America, 4.9% in North America and 3.3% in East Asia. Mean duration of living in Malmö was 24.4 years (1.0 – 80.0, SD 18.5). FB were more stressed than NFB, (PSS mean 17.5 vs 15.3, p = 0.044) and had more economic difficulties (31.0% vs 14.6%, p = 0.005). FB had more anxiety than NFB (39.7% vs 24.9%, p = 0.03). 36.2% of FB were depressed and 7.0% reported suicidal ideation because of their skin.

There were fewer cases diagnosed with atopic dermatitis in the FB (1.6% vs 6.3%) and no cases of psoriasis (10.1% vs 0%, p = 0.010) or seborrheic dermatitis (3.2% vs 0%). There were more cases with connective tissue disease compared to NFB (8.2% vs 0.5%, p = 0.004).

#### **Conclusion:**

This study reports the muti-ethnic population in an out-patient dermatological clinic in Malmö, Sweden. The result also demonstrates the difference in distribution of dermatological conditions among foreign born and non-

foreign born patients as well as the burden of disease, with higher levels of stress and anxiety in the foreign born patient group. These issues will be investigated further by our group in a larger multicentre study.

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#### Mortality in pemphigus in Tunisia: a national case series

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#### Mortality in pemphigus in Tunisia: a national case series

#### Introduction & Objectives:

Pemphigus P is characterized by high morbidity and mortality. The prescription of steroids and immunosuppressants has considerably improved the prognosis of the disease. The objective of our work was to evaluate the mortality rate of P in Tunisia.

#### Materials & Methods:

A retrospective and multicentric study carried out in the seven dermatology departments of Tunisia collecting all new cases of P, during a period of five years (January 2015- December 2019).

#### Results

We included 225 new cases of P: 113 cases of deep P (97 cases of P vulgaris, 16 cases of P vegetans), 88 cases of superficial P (73 cases of P seborrheic, 15 cases of P foliaceous), P herpetiformis (n=19), paraneoplastic P (n=4) and a single case of IgA pemphigus. The mean age of onset was  $49.3 \pm 18.2$  years. The adjusted F/H sex ratio was 1.9. There were 12 deaths during the 5-year study period. Case fatality rate was estimated at 6.7%. Pemphigus-specific mortality rate was 1.14 per 100,000 population. The distribution of patients who died according to the type of pemphigus was as follows: P vulgaris (n=5), P vegetans (n=1), P seborrheic (n=2), P foliaceous (n=1), Paraneoplastic P (n=2) and Herpetiformis P (n=1). Paraneoplastic P was characterized by the highest case fatality rate (50%). P vulagris had a higher case fatality rate than superficial P (7% and 4% respectively). Causes of death were: sepsis and septic shock (n=9), progression of the underlying neoplasia (n=2) and hydro-electrolytic disorders (n=1).

#### **Conclusion:**

P is associated with at least a 2-fold increased risk of mortality compared with the general population. The case fatality rate estimated in our study at 6.7% is comparable to literature data reporting a rate between 5% and 30%. This relatively average result could be explained by the limited period of our study to 5 years. In fact, the lethality rate in P increases in parallel with the duration of patient follow-up. The poor prognosis of paraneoplastic pemphigus is related to both the underlying neoplasia and the severity of the multi-organ involvement. Sepsis is the main aetiology of mortality in P given the impaired skin barrier function. Early management of mucocutaneous infections could reduce this risk.