1ST EUROPEAN DERMATO-EPIDEMIOLOGY NETWORK (EDEN) FORUM

MADRID, 30-31 MARCH 2017

Organised with the support of AEDV (Spanish Academy of Dermatology)

Abstracts book

Venue

Ilustre Colegio Oficial de Médicos de Madrid (ICOMEM), Calle de Santa Isabel, 51, Madrid

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Preconference course: Skin Cancer Epidemiology

Facilitated by the skin cancer research group of the Department of Dermatology, Erasmus MC Cancer Institute, Rotterdam, The Netherlands.

Thursday March 30th, 2017, 8.30-12.00

8.30-9.15	(Routine) data used in skin cancer epidemiology. Dr Marlies Wakkee. (e.g. cancer registry data, cohort studies)
9.15-10.00	Basics of statistics in skin cancer epidemiology. Dr. Loes Hollestein. (e.g. standardization of incidence rates, trend analysis using joinpoint regression)
10.00-10.25	Break
10.25-11.10	Survival analysis I: the basics. Dr Loes Hollestein. (e.g. kaplan-meier, competing risks)
11.10-11.55	Survival analysis II: recurrent events of skin cancer. Dr Joris Verkouteren. (e.g. time-varying analysis of covariates)

Invited talks

"Is causality restricted to interventions?"

Prof Olaf Dekkers. Leiden University Medical Center (LUMC), Leiden, The Netherlands

"Epidemiology, outcomes research and quality indicators: using epidemiology to improve quality of clinical care"

Dr. Loreto Carmona. Research Director, Instituto de Salud Musculoesqueletica, Madrid, Spain

"Use of primary care databases in epidemiologic research"

Dr. Luis Alberto García Rodríguez. Director, Centro Español de Investigación Farmacoepidemiológica, Madrid, Spain

"Missing data: an overview of the problem and the solutions"

Prof. James Carpenter. Professor of Medical Statistics and Programme Leader in Methodology, MRC Clinical Trials Unit, London School of Hygiene and Tropical Medicine, London, UK

Oral Communications

25-hydroxyvitamin D and features of skin aging: a bidirectional Mendelian Randomization Study

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Conflict of interest disclosure: Although no products were tested, it is possible this research could promote products that reduce the appearance of skin aging, which could lead to financial gain for Unilever.
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Abstract (word limit 300 words)

Background: The relationship between vitamin D and different features of skin aging (e.g. wrinkles, pigmented spots (PS), and perceived age (PA)) is unclear. Data from in-vitro experiments suggest vitamin D is able to influence skin aging, but for population studies this association is difficult to investigate because of confounding by exposure to sunlight. We investigated the (causal) association between vitamin D levels and skin aging features in middle-aged to elderly participants from the Rotterdam Study (RS) and Leiden Longevity Study (LLS).
Aim: To investigate whether an association between 25-hydroxyvitamin D and different features of skin aging is causal, performing bidirectional Mendelian randomization.
Methods: Standardized facial photographs were obtained of northwestern Europeans from the RS (population-based cohort study, N=3,831; 58.2% female, median age 66.5) and LLS (N=661; 50.5% female, median age 63.1). Facial wrinkles and PS were quantified either digitally (RS) or by two independent dermatologists (LLS), and PA was graded by 27 (RS) or 60 (LLS) assessors. Associations between 25-hydroxyvitamin D (z-score standardized) and skin aging phenotypes were tested with linear regression, adjusted for chronological age, sex, body mass index, smoking and season, followed by fixed-effect meta-analysis of the two cohorts. For a Mendelian Randomization analysis, we defined a weighted genetic risk score for 25-hydroxyvitamin D based on three genetic variants (rs2282679 (GC), rs3829251 (NADSYN1), and rs2060793 (CYP2R1)) as identified in genome-wide association studies.
Results: After meta-analysis of the two cohorts, a higher circulating 25-hydroxyvitamin D was associated with more wrinkling (P-value=2.6e-16) and higher PA (P-value=3.6e-7), but not with more PS (P-value=0.30). The weighted genetic risk score for 25-hydroxyvitamin D was associated with a higher serum 25-hydroxyvitamin D (P-value=2.3e-64), but not with any of the skin aging features (P-values>0.05).
Conclusion: Our study did not provide evidence that the associations between 25-hydroxyvitamin D and different features of skin aging are causal.

Abstract for the 1st European Dermato-Epidemiology Network Forum

Madrid, March 30-31, 2017

A Systematic Review of Photodynamic Therapy in Facial Photodamage

Authors: Gloria Sanclemente, MD,MSc,PhD; Veronica Ruiz-Cañas; Jenny- Marcela Miranda; Alba-Patricia Ferrín; Paola-Andrea Ramirez; Gilma-Norela Hernandez.
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Conflict of interest disclosure: Dr. Gloria Sanclemente has participated in advisory boards and has received honoraria and scientific meeting support from Galderma Laboratories; Dr. Veronica Ruiz Cañas has received scientific meeting support from Galderma Laboratories;Dr. Jenny Marcela Miranda Orozco has received scientific meeting support from Galderma Laboratories;Dr. Alba Patricia Ferrín Bastidas has received scientific meeting support from Galderma Laboratories;Paola Andrea Ramirez has nothing to disclose; Gilma Hernandez has nothing to disclose
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Abstract (word limit 300 words)

Background: Topical Photodynamic therapy (PDT) has been approved for actinic keratoses, Bowen's disease and superficial and nodular basal cell carcinomas, but its indication in facial skin photodamage is uncertain.
Aim: To assess the efficacy and safety of topical PDT in facial photodamage
Methods: All efficacy and/or safety randomized clinical trials (RCTs) evaluating topical PDT for the treatment of facial skin photodamage in adults, were included. Comparators considered included placebo or no treatment and/or intense pulsed light, dermabrasion or microdermabrasion, chemical exfoliation, injectables, light emitting diodes, lasers, surgery, placebo and/or no treatment. Primary outcomes: 1-Proportion of patients with facial photodamage improvement 2-Proportion of patients presenting any adverse event.
Search methods: A rigorous systematic search in PubMed, Embase, Lilacs, Google Scholar and RCT´s registry databases, was performed
Results: Four authors independently selected and assessed methodological quality of each RCT. Main photosensitizers used were Aminolevulinate (ALA) and Methyl-Aminolevulinate (MAL). Twelve studies were finally included, but the majority of them had methodological limitations particularly in patients/outcome assessor's blindness and in randomization methods domains
Conclusion: Overall results showed that topical PDT was effective and safe for facial photodamage treatment, but quality of evidence was higher for MAL studies

Abstract for the 1st European Dermato-Epidemiology Network Forum

Madrid, March 30-31, 2017

Registration of non-melanoma skin cancer in England - the tip of an iceberg?

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Abstract (word limit 300 words)

Background: Non melanoma skin cancers (NMSCs) are a neglected but important group of malignancies, often ignored by national cancer registries. Although mortality is low, prevalence is high therefore it has a huge burden on healthcare systems.
The UK and Ireland Association of Cancer Registries recommends only registering the 1st non melanoma skin cancer. This is mainly due to the complexity of registering multiple NMSC.
Since 2013, English cancer registries have nationalised and initiated automatised registration of NMSC. As a result we believe we have the most complete data regarding NMSC in England to date.
Data feeds are received from pathology laboratories (including morphology and topography codes), Multi-Disciplinary Team (MDT) meeting reports and PAS (Patient Administration System). In addition; Hospital Episode Statistics (HES), mortality data, full text pathology reports, chemotherapy and radiotherapy data feeds can be linked.
Aim: We aim to improve the accuracy of the statistics we provide by locating missing data and improving reported data.
Methods: This will be performed through analysis of the National Cancer Registration and Analysis Service (NCRAS) in England and comparison to laboratory estimates.
Results: Provisional annual estimates for 2015 show that 125,124 NMSC have been registered. As a result of the 1st registration rule, previous studies suggest true incidence to be 30-50% higher if subsequent NMSC were registered. Based on laboratory estimates, we believe we are receiving around >85% pathology reports regarding NMSC and 55% are registered as a 1st NMSC.
Conclusion: We aim to interrogate further the analysis system to provide accurate estimates of NMSC incidence in England. This data is essential for service planning and to guide clinical practice.

Abstract for the 1st European Dermato-Epidemiology Network Forum

Madrid, March 30-31, 2017

Development and validation of the Basal and Squamous cell carcinoma Quality of Life (BaSQoL) questionnaire

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Abstract (word limit 300 words)

Background: Health-related quality of life is increasingly important in the management of patients with basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). Disease-specific questionnaires exist, but with important shortcomings.
Aim: To develop and validate a questionnaire suitable for use in all BCC and SCC patients.
Methods: In a four-phase trajectory, mostly following questionnaire development guidelines of the European Organisation for Research and Treatment of Cancer (EORTC), 33 items were selected and rephrased into a preliminary questionnaire. A population-based sample (1173 patients) from the Netherlands Cancer Registry was invited to complete the questionnaire. The questionnaire was reduced using exploratory factor analysis and item response theory. Subsequently, individual item performance was assessed using 8 features of classical test theory (CTT).
Results: The preliminary questionnaire was completed by 721 patients (15% SCC). The number of items was reduced to 16, covering five scales: “Worries”, “Appearance”, “Behaviour”, “Diagnosis & Treatment” and “Other People”. Confirmatory factor analysis showed a good fit. Cronbach’s αs (range 0.67 – 0.82) were reasonable to high and demonstrated good internal consistency. Of the 8 CTT item performance features, only 1 feature was suboptimal for 7 out of 16 items and 2 for 1 item.
Conclusion: The Basal and Squamous cell carcinoma Quality of Life (BaSQoL) questionnaire has good face, content and construct validity. It is representative for use in the wide range of BCC and SCC patients and captures HRQoL impact in different time periods. Therefore we consider the BaSQoL a useful tool to capture HRQoL impact in future studies.

Oral Communications: Psoriasis

Risk of incident cancer in psoriasis patients treated with biologics. Meta-analysis of nested case-control studies in Psonet registries. Description of study and preliminary results

Authors: Garcia-Doval I (1,2), Descalzo MA (1), Mason K (3),Ormerod A(4), Griffiths C (3), Cohen AD (5), Ali H (5), Gomez-Garcia FJ (6), Herrera E(7), Cazzaniga S (8), Feldhamer I(5), Naldi L(8)
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Conflict of interest disclosure: IGD received congress travel grants from Pfizer, Janssen, and MSD more than 3 years ago;
KM have received honoraria from Janssen and Eli Lilly;
AO has lectured for or received travel assistance from Janssen, Abbvie, and Pfizer, has participated in advisory boards for MSD and Abbvie, and his department has received research funding from Abbvie, Janssen, Pfizer, Novartis, and MSD;
CEMG has received honoraria and/or research grants from Abbvie, Actelion, Amgen, Celgene, Lilly, GSK-Stiefel, Janssen, MSD, Novartis, Pfizer, and Sandoz. CEMG is a National Institute for Health Research Senior Investigator;
ADC served as an advisor, consultant, investigator, or speaker for the following companies: AbbVie, Boehringer Ingelheim, Dexcel Pharma, Janssen, Neopharm, Novartis, Perrigo, Pfizer, and Rafa;
SC received consultation fees from AbbVie, Janssen-Cilag, and Difa Cooper;
EH served as a consultant and speaker for AbbVie Laboratories, Janssen Pharmaceuticals Inc and Pfizer-Wyett;
LN is a member of the scientific board of the Psolar registry, which is supported by Centocor, and acted as consultant for AbbVie.
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Abstract (word limit 300 words)

Background: Immunosuppressive drugs are known to increase the risk of cancer, and this is one of the main long-term concerns for psoriasis therapy, specially biologics.Cancer is a rare outcome and existing registries are underpowered to detect an increase in risk. In trasnplanted patients latency from exposure to cancer is several years.
Aim: To describe the existance of a dose-response effect in the association between cummulative exposure to biologics and risk of incident cancer in psoriasis patients.
Methods: Meta-analysis of nested case-control studies in the participating cohorts. In each registry, patients with previous cancer were excluded from the study. Cases of cancer were reviewed locally and externally by two clinicians to exclude in-situ and benign tumours. Each case of cancer was matched with four controls on year of birth, gender and area. Data on matched sets was censored at the date of cancer diagnosis in the case, and cumulative lifetime exposure to systemic psoriasis therapy was calculated. Conditional logistic regression models were calculated for overall exposure to biologics, a second one with overall exposure to biologics and classic immunosuppressive drugs and a fully adjusted model with other possible confounders: modified Charlson index (as a measure of comorbidities and contact with the health system, calculated using the available variables), smoking, exposure to phototherapy and duration of psoriasis. Sensitivity analysis were done including squamous cell carcinoma and both SCC and BCC. Results of these models form each cohort were merged using meta-analysis.
Results: These are partial results of the ongoing study. Up to now, we have limited results from Spain and Italy. We merged results from 186 cancer cases and 576 controls, extracted from 24296 person years of follow-up in all registries. Odds ratios of 1 year exposure to biologics were: raw 1.07 (95%CI: 0.94-1.21), adjusted for use of other systemic therapy 1.05 (95%CI:0.91-1.21), and fully adjusted 1.10 (95%CI:0.94-1.29).
Conclusion: Although results are still preliminary, it seems that patients with psoriasis treated with biologics do not have an increased risk of develop cancer

Abstract for the 1st European Dermato-Epidemiology Network Forum

Madrid, March 30-31, 2017

Suicide and nonfatal self-harm risk in people with psoriasis: a population-based cohort study using linked primary care, hospitalisation and mortality records

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Conflict of interest disclosure: No conflict of interest.
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Abstract (word limit 300 words)

Background: Psoriasis is a common inflammatory skin disease with a psychological burden. It is believed that this may lead to elevated risks of suicide and nonfatal self-harm.
Aim: To investigate the association between psoriasis and risks of suicide and self-harm.
Methods: From the Clinical Practice Research Datalink linked to the Hospital Episode Statistics and the Office for National Statistics mortality records, an inception cohort of people with psoriasis (16 years old or older) was identified between 1998 and 2014. For each patient with psoriasis up to 20 comparison patients were matched by age, gender, practice and index date. A stratified Cox proportional hazard model was used to estimate the risk of suicide and self-harm in patients with psoriasis adjusting for social-economic status. Statistical models with interaction between psoriasis and age were tested.
Results: The cohort included 56,961 patients with psoriasis and 876,919 comparison patients without psoriasis. The suicide rates were 1.1/10,000 (0.8-1.5) person-years and 1.5/10,000 (1.4-1.6) person-years in the psoriasis and comparison cohort respectively. After excluding people with a history of self-harm, the self-harm rates were 18.9/10,000 person-years (17.4-20.4) and 16.2/10,000 person-years (15.8-16.6) respectively. The adjusted HR (95% CI) for suicide in patients with psoriasis was 0.59 (0.41-0.85), whereas the HR of self-harm was 1.07 (0.97-1.17). The risk of suicide varied according to age (p=0.017); people with psoriasis aged <40 years had a reduced but not significant risk of suicide (HR 0.92 (0.58-1.46)) whereas people with psoriasis aged 40 years and above had a significantly reduced risk of suicide compared to people without the disease (HR 0.38 (0.21-0.66)).
Conclusion: The findings suggest a reduced risk of suicide and no evidence of an elevated risk of self-harm in people with psoriasis compared to the general population. Suicide risk assessment might not be an urgent priority for people with psoriasis as suggested by other studies.

Abstract for the 1st European Dermato-Epidemiology Network Forum

Madrid, March 30-31, 2017

Obesity and the risk of incident psoriasis: a population-based cohort study

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Abstract (word limit 300 words)

Background: Cross-sectional studies have observed that psoriatic patients are more likely to be obese, but there are few data from prospective studies.
Aim: To study if overweight and obesity were associated with the subsequent risk of incident psoriasis in a general population, and to examine the association between 10-year change in body weight and BMI and risk of incident psoriasis.
Methods: All residents aged 20 or older in Nord-Trøndelag County, Norway, were invited and 33 734 participants were included. We prospectively examined if objectively measured BMI, waist circumference and waist-hip ratio were associated with risk of incident psoriasis using Cox regression. We also studied weight change 10 years prior to baseline in 25 148 participants. The outcome was self-reported incident psoriasis.
Results: There were 369 incident psoriasis cases during ~10 years of follow-up. One standard deviation increase in waist circumference was associated with an adjusted relative risk (RR) of incident psoriasis of 1.26 (95% CI 1.15 to 1.39). Obese people (BMI ≥ 30 kg/m2) had an adjusted RR of 1.87 (95% CI 1.38 to 2.52) compared to those who were normal weight (BMI 18.5-24.9 kg/m2). A weight increase of more than 10 kg prior to baseline gave a RR of incident psoriasis of 2.83 (95 % CI 1.54 to 5.22), and a weight reduction of more than 2.0 kg gave a RR of 0.52 (95 % CI 0.22 to 1.21).
Conclusion: Body weight is a modifiable risk factor with regard to psoriasis development; we found a consistent dose-response relationship across multiple obesity related measurements. Also, weight loss is associated with reduced risk and weight gain is associated with increased risk of incident psoriasis.

Abstract for the 1st European Dermato-Epidemiology Network Forum

Madrid, March 30-31, 2017

Psoriasis is not associated with cognitive function impairment and brain MRI-correlates: The Rotterdam Study

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Abstract (word limit 300 words)

Background: Based on an increased burden of cardio-metabolic comorbidities and a potential genetic overlap between Alzheimer disease and psoriasis, persons with psoriasis may have a worse cognitive performance and worse brain health than healthy controls.
Aim: To investigate cognition and brain Magnetic Resonance Imaging (MRI)-correlates in patients with psoriasis and unaffected controls in a population based setting.
Methods: This nested case-control study, embedded within the population-based Rotterdam Study, identified 234 patients with psoriasis and 7173 control subjects, aged ≥45 years, who underwent neuropsychological testing and brain MRI. The association of psoriasis with different cognitive domains, including memory, information processing speed and executive functioning, as well as with global cognition, was examined. Furthermore, its association with the presence of mild cognitive impairment and volumetric, microstructural and focal MRI-correlates was investigated. We obtained mean differences and odds ratios (95% confidence intervals [CI]), adjusted for age, sex and cardiovascular risk factors.
Results: Psoriasis patients, of whom 28% had used systemic or UV treatment, had more hypertension, and higher body mass index and waist circumference levels. Cognitive tests scores did not differ significantly between psoriatic patients and controls. Also, psoriasis was not associated with presence of mild cognitive impairment (n=25) (adjusted odd ratio 0.87, 95% CI: 0.53-1.43). Finally, the MRI-markers of brain pathology only showed a lower hippocampal volume for psoriasis patients compared to controls ($p<0.05$), but significance disappeared after adjusting for potential confounders (adjusted mean difference: -0.03 (95% CI: -0.21 to - 0.00).
Conclusion: In this population-based study, the presence of predominantly mild psoriasis was not associated with cognitive impairment or brain MRI-correlates.

Friday, March 31st, 2017

Oral Communications: General epidemiology, publishing

Socioeconomic inequalities in the prevalence of skin diseases in the general population of 5 European countries

Authors: Robert Ofenloch[1], Åke Svensson[2], Magnus Bruze[3], Luigi Naldi[4], Simone Cazzaniga[4], Peter Elsner[5], Margarida Goncalo[6], Marie-Louise Schuttelaar[7], and Thomas L Diepgen[1]
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Abstract (word limit 300 words)

Background: Data on socioeconomic inequalities in the prevalence of skin diseases in the general population is scarce. Studies performed in different countries found disputing results and can hardly be compared because of different methodologies in sampling and data assessment. The EDEN fragrance study (EFS) was initiated to assess the prevalence of fragrance contact allergy in the general population in 5 European countries (Germany, Italy, Portugal, The Netherlands and Sweden). Besides information on contact allergies, also self-reported information on skin diseases, education and household income were collected.
Aim: To investigate the association between socioeconomic status (SES) and the prevalence of self-reported skin diseases in the general population.
Methods: For the EFS a random sample from the general population was drawn, in total 12,377 subjects were interviewed. However, because a question on income was added after the study had already started, complete data on SES is available for 7,904 subjects. We estimated the SES by combining the net household income with the highest education of the respondents and built three categories (low, middle and high) for SES.
Results: The prevalence of any eczema (contact, atopic or other) during lifetime increased in all countries by SES with the steepest increase in Portugal (low SES: 18.9% [95%-CI: 15.5-22.7] vs. high SES: 36.5% [95%-CI: 29.5-43.9]). Also the prevalence of skin cancer increased with SES; interestingly, this association was found to be reversed in the Dutch population (low SES: 4.1% [95%-CI: 1.9-7.7] vs. high SES: 1.5% [95%-CI: 0.5-3.4]). The same was true for atopic diseases (atopic eczema, allergic rhinitis & allergic asthma) the strongest association was found in Portugal (low SES: 11.3% [95%-CI: 8.6-14.5] vs. high SES: 23.3% [95%-CI: 17.4-30.2]) and again a reversed association was found in the Netherlands. The prevalence of leg ulcer was in general higher in individuals with low SES with the steepest increase in Sweden (low SES: 2.2% [95%-CI: 1.2-3.7] vs. high SES: 0.2% [95%-CI: 0.0-1.3]).
Conclusion: In most diseases health inequalities can be investigated, generally showing higher morbidity rates in individuals with low SES. However, this is not true for skin diseases; here, people with a higher SES are more often affected. More research should be conducted in order to investigate why the Dutch population is such a special case in Euope.

Abstract for the 1st European Dermato-Epidemiology Network Forum

Madrid, March 30-31, 2017

Outpatient dermatological diagnosis in Spain: results from a national survey

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Abstract (word limit 300 words)

Background: Previous studies describe outpatient diagnosis retrospectively from isolated clinics and in different settings
Aim: To estimate and describe outpatient dermatological diagnosis in Spain
Methods: We obtained a simple random sample of dermatologist from the Spanish Academy of Dermatology stratified by territory. Academy includes 97% of all dermatologist. Each participant collected all diagnosis during 3 consecutive days in a cold season (January) and during 3 consecutive days in a warm season (May). The coding was performed by an expert dermatologist using ICD-10.
Results: A 65% (80/124) and 59% (73/124) dermatologist participated in each season.During the study period, 10,999 diagnoses were performed in 8,953 patients, representing a total estimate of 208,141 diagnoses performed in 169,517 patients for all Spanish Academy of Dermatology members. The number of estimated patients who consult the dermatologist in Spain per month would be 621,562 (95% CI: 368,130-874,995) with an average of 28.2 (25.2-31.2) patients per consultation day.L57 (Skin changes due to chronic exposure to nonionizing radiation) and C44 (Other malignant neoplasms of skin) were the most frequent diagnoses in cold and warm seasons.
Conclusion: A detailed classification was obtained regarding most frequented diagnosis that will be helpful for management and future research studies. No seasonality was detected in most frequent diagnosis.

Abstract for the 1st European Dermato-Epidemiology Network Forum

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Reporting quality of case reports in international dermatology journals

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Abstract (word limit 300 words)

Background: The CARE (Case Report) guidelines were developed to improve the completeness and transparency of published case reports. Until now, there are no studies about the quality of case reports in the dermatological literature.
Aim: To assess the quality of reporting case reports in dermatology.
Methods: : 7 leading peer-reviewed dermatology journals, namely, Journal of the American Academy of Dermatology, British Journal of Dermatology, Clinical and Experimental Dermatology, Dermatology, European Journal of Dermatology, International Journal of Dermatology and Journal of the European Academy of Dermatology and Venereology, were selected. Two reviewers independently hand-searched case reports in all issues over a 2-year period, from January 2012 through December 2013. Fifty papers from each journal were extracted randomly and independently analyzed by two investigators for conformity according to the 30 item-CARE checklist. Concordances between the two reviewers and critical items were calculated using kappa coefficient.
Results: : In total, 293 studies were included and analyzed. The most frequently reported items were the demographic information of the patient, the main symptoms and the relevant physical examination findings, the diagnostic methods and types of intervention, the relevant medical literature reference, the rationale for conclusions and the main “take-away” lessons of the case report. Concordance between reviewers was higher when addressing the items about presence of “keywords” and “introduction answering to the question “What does this case add””. Critical items of analyzed case reports were the demographic information of the patient and "prognostic characteristics if applicable”, showing the lowest kappa value.
Conclusion: While the majority of dermatological case reports show a satisfactory conformity with the CARE guidelines, there is still a necessity of improvement of the quality of reporting specific items.

Note: this work is under revision by BJD (as a letter to the editor).

Oral Communications: Other inflammatory

Is initiation of isotretinoin a trigger for suicide attempt ? Design considerations

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Abstract (word limit 300 words)

Title: Is initiation of isotretinoin a trigger for suicide attempt ? Design considerations.
Background: Isotretinoine is mainly indicated for severe acne, and this drug has been suspected to initiate and exacerbate mood disorders, and suicides . Several studies on the link between isotretinoin and suicide yielded conflicting results. The most delicate problems being 1/bias for indication since severe acne could be per se a risk factor for mood disorders and suicide attempt, and 2/ basal risk modifications over time. Drug agencies have edicted recommandations for careful monitoring patients psychological factors in patients under isotretinoin.
Aim: Assessing the risk of hospitalized suicide attempt after initiation of isotretinoin in French patients treated between 2010 and 2016.
Methods: We extracted relevant data all isotretinoin users from French SNIIRAM database between 2010 and 2016. SNIIRAM database is a French national reimbursement database including exhaustive data for 95% of the 66 millions French people.
Results: With isotretinoin reimbursement as a proxy for drug exposure, and hospitalized suicide attempts as events of interest, case-control, cohort, or simple case-crossover designs had severe limitations, and we selected a case-time-control design. Only short term risk during the first 3 months after initiation can be analysed with this design. Analyses will be stratified on psychiatric status and on first/n isotretinoin course. Data are being extracted for more than 500 000 different users during the study period, and preliminary results should be presented.
Conclusion: This will be the most powerful study on the pending question on isotretinoin as a risk factor for suicide and suicide attempt.

Abstract for the 1st European Dermato-Epidemiology Network Forum

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Prevalence and risk factors of toxic contact dermatitis: a secondary data analysis

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Abstract (word limit 300 words)

Background: Population-based data regarding prevalence and risk factors of toxic contact dermatitis (TCD) mainly stem from self-reports with unclear validity.
Aim: It was the aim of this study to analyse the prevalence of TCD as well as risk factors for incident TCD based on secondary data obtained from a statutory health insurance in Germany.
Methods: We used data from an adminstrative health care database of the AOK PLUS Saxony health insurance for people > 14 years. Data on age, sex, TCD, and atopic comorbidites (atopic eczema, vasomotor and allergic rhinopathy, asthma) were used in a pseudonymized form for the years 2005 (N=1.82 million), 2009 (N=1.87 million) and 2013 (N=1.92 million). Diagnoses were accepted when an ICD code was documented at least twice during one year. Descriptive analyses and multivariable logistic regression were performed using Stata version 13.1.
Results: In 2013, the prevalence of TCD was 0,021% (women: 0.024%, men: 0.018%; 14-39 years: 0.012%, 40-64 years: 0.025%, 65 years: 0.023%). There was a slight decrease over time (2005: 0.035%, 2009: 0.026%). In 2013, incidence of TCD was 0.005%. In multivariable logistic regression, atopic eczema was the only factor that was significantly associated with incident TCD (OR=7.297, p<0,01).
Conclusion: The age and sex distribution of TCD is in line with data reported from questionnaire studies. However, the overall prevalence of TCD is much lower in our study. This finding can be explained by the way data are obtained (self report vs. diagnosis coded at least twice) and the fact that only those people who visited a doctor were detected as prevalent cases in our analysis. Seeking medical help for TCD seems to be limited. The association of atopic eczema with TCD was much stronger in our analysis compared to previous reports.

Abstract for the 1st European Dermato-Epidemiology Network Forum

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Prevalence and determinants of seborrheic dermatitis in a middle-aged and elderly population: The Rotterdam Study

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Abstract (word limit 300 words)

Background: Seborrheic dermatitis is a chronic relapsing inflammatory skin disease with unclear pathophysiological mechanisms. Despite the high frequency of seborrheic dermatitis in the population and the impaired quality of life associated with seborrheic dermatitis, studies investigating the etiology of seborrheic dermatitis are scarce.
Aim: To establish which lifestyle and physiological determinants are associated with seborrheic dermatitis
Methods: Seborrheic dermatitis was diagnosed by a trained physician during a full body skin examination within the Rotterdam Study, a prospective population-based cohort study in middle aged and elderly. Potential factors were identified from the literature and analyzed in a multivariable logistic regression, including: age, sex, obesity, skin color, stress, depression, education level, hypertension, climate, xerosis cutis, alcohol and tobacco use.
Results: Of the 5,498 participants, 788 participants were diagnosed with seborrheic dermatitis (14.3%). We found associations between seborrheic dermatitis and male sex (OR 2.06; 95% CI: 1.75-2.43), darker skin (OR0.40; 95% CI: 0.22-0.70), season (summer vs winter: OR 0.60; 95% CI: 0.52-0.68) and generalized xerosis cutis (OR 1.43; 95% CI 1.12-1.83).
Conclusion: Seborrheic dermatitis is one of most common inflammatory dermatoses in middle and elderly aged individuals, especially during winter period. At risk are men, and people with a light and dry skin.

Oral Communications: Eczema

Sociodemographic variations in the incidence of eczema in children, 1997-2015: A population-based cohort study in England

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Abstract (word limit 300 words)

Background: Eczema is one of the most common chronic conditions in children and associated with high morbidity. However population-based estimates of incidence of eczema in children are lacking in the United Kingdom.
Aim: To estimate the incidence of clinically diagnosed eczema in children, overall and by different sociodemographic characteristics.
Methods: We established an open cohort of children aged <18 years between April 1997 and March 2015 from the Clinical Practice Research Datalink. We identified a child as having clinically diagnosed eczema using a previously validated algorithm based on diagnostic and treatment codes and used first diagnosis as date of diagnosis. We calculated incidence overall and stratified by age, gender, socioeconomic status, ethnicity and calendar year. We performed Poisson regressions to calculate adjusted rate ratios (aRR).
Results: In total 675,087 children were identified of which 98,082 (14.5%) had eczema. The incidence rate was highest in the first year after birth (13.8 per 100 person-years, 95% confidence interval 13.7-13.9) and then decreased to less than 1 per 100 person-years by 5 years of age. The annual incidence rate was stable during 1997-2015. Boys had a 40% higher rate than girls (aRR=1.4, 1.3-1.4) before age 1 year, but a similar rate (aRR=1.0, 1.0-1.0) at age 1-4 years and a 30% lower rate (aRR=0.7, 0.7-0.8) at age ≥5 years. Compared to children from the lowest socioeconomic status families, children from the highest socioeconomic status families had a 20% higher incidence rate by age 5 years but there was no difference afterwards. Non-white children had a 2 to 3 fold increased rate of eczema compared to white children in the first year of life.
Conclusion: The incidence of eczema in children was stable during 1997-2015 in England. Incidence was highest in the first few years of life, especially in boys, non-white children and children from high socioeconomic status families.

Abstract for the 1st European Dermato-Epidemiology Network Forum

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Domestic hard water exposure in infancy and subsequent risk of childhood atopic eczema

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Abstract (word limit 300 words)

Background: Ecological studies have identified an association between water hardness and atopic eczema (eczema). Cross-sectional analysis of the Enquiring About Tolerance (EAT) study identified an increased odds of eczema at 3 months of age in infants exposed to hard vs. soft water, depending on the level of chlorine co-exposure.
Aim: To determine the risk of eczema in infants exposed to hard water between 3-36 months of age
Methods: EAT study children aged 3-36 months without eczema at 3 months were selected. Water hardness exposure was defined as domestic water calcium carbonate ($CaCO_3$) concentration supplied to the child's main residence. The primary outcome was development of 'any eczema', a composite of visible or parent-reported eczema, between 3-36 months of age. A multiple logistic regression model was fitted with adjustment for key confounders at baseline.
Results: 947/1303 (73%) infants were included. Of these, 472 (50%) developed eczema by 36 months. There was no statistically significant association between exposure to harder (>255 mg/L $CaCO_3$) vs. softer (≤255 mg/L $CaCO_3$) water: crude OR 0.86 (95% CI 0.67, 1.11) and after adjustment for multiple confounders: OR 0.92 (95% CI 0.68, 1.26). We also did not find any association between eczema risk and domestic water chlorine exposure. Filaggrin genotype did not appreciably alter these risk estimates.
Conclusion: While living in a hard water area is associated with an increased risk of developing eczema during the first 3 months of life, we did not find an association with eczema development beyond this.This suggests that the first three months of life are critical in determining the risk of atopic eczema with hard water exposure in susceptible individuals. We are developing a causal model to examine this further, taking into account time-varying confounding.

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Madrid, March 30-31, 2017

TREatment of ATopic dermatitis (TREAT) Registry Taskforce: an international Delphi exercise to identify a core set of domains and domain items for national atopic eczema registries

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Abstract (word limit 300 words)

Background: The evidence of photo- or systemic therapies to guide clinical management for atopic eczema (AE) is small, despite frequent and often off-label use. Patient registries could provide additional evidence. The collection of a core dataset will allow direct comparisons across registries as well as data sharing and pooling.

Aim: The TREatment of ATopic eczema (TREAT) Registry Taskforce aims to seek consensus between key stakeholders internationally on a core dataset of domains (what to measure) for AE registries with a research focus that collect data of children and adults on these therapies.

Methods: Participants from six stakeholder groups were invited. The eDelphi comprised 3 sequential online rounds, requesting participants to rate the importance of each proposed domain. Further they could comment on the obvious list of domains (n=30) and they were able to add domains to the proposed list in round 1. A final consensus meeting was held in October 2016 to ratify the core dataset by discussion and voting.

Results: 479 people of in total 36 countries accessed the eDelphi. Response rates of round 1, 2 and 3 were 86%, 79% and 74% respectively. After 3 rounds 29 domains had reached consensus for inclusion in the core dataset beside the 30 domains of the obvious list. The final dataset was established at the consensus meeting to which 42 participants attended. All 29 domains were ratified, although 3 domains were removed as they were combined with similar domains. 12 were added by voting. In total 68 domains were included in the final core dataset.

Conclusion: Identifying a uniform core dataset of domains to be captured by AE patient registries will increase the utility of individual registries, and provide greater insight into the effectiveness, safety and cost-effectiveness of photo- and systemic immunomodulatory therapies to guide clinical management.

Oral Communications: Infections

Quantification of risk factors for postherpetic neuralgia in herpes zoster patients

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Abstract (word limit 300 words)

Background: Our understanding of PHN risk factors is incomplete; except for age, evidence is conflicting and studies are often underpowered to detect associations. Identifying PHN risk factors to inform zoster vaccination policy could have important public health benefits.
Aim: To investigate risk factors for postherpetic neuralgia, the neuropathic pain that commonly follows herpes zoster.
Methods: Using primary care data from the Clinical Practice Research Datalink, we fitted multivariable logistic regression models to investigate potential risk factors for postherpetic neuralgia (defined as pain ≥90 days after zoster, based on diagnostic or prescription codes), including demographic characteristics, comorbidities, and characteristics of the acute zoster episode. We also assessed whether the effects were modified by antiviral use.
Results: Of 119,413 zoster patients, 6,956 (5.8%) developed postherpetic neuralgia. Postherpetic neuralgia risk rose steeply with age, most sharply between 50 and 79 years (adjusted odds ratio [OR] for a 10-year increase, 1.70, 99% confidence interval 1.63–1.78). Postherpetic neuralgia risk was higher in women (6.3% vs 5.1% in men: OR 1.19, 1.10–1.27) and those with severely immunosuppressive conditions, including leukemia (13.7%: 2.07, 1.08–3.96) and lymphoma (12.7%: 2.45, 1.53–3.92); autoimmune conditions, including rheumatoid arthritis (9.1%: 1.20, 0.99–1.46); and other comorbidities, including asthma and diabetes. Current and ex-smokers, as well as underweight and obese individuals, were at increased risk of postherpetic neuralgia. Antiviral use was not associated with postherpetic neuralgia (OR 1.04, 0.97–1.11). However, the increased risk associated with severe immunosuppression appeared less pronounced in patients given antivirals.
Conclusion: Postherpetic neuralgia risk was increased for a number of patient characteristics and comorbidities, notably with age and among those with severe immunosuppression. As zoster vaccination is contraindicated for patients with severe immunosuppression, strategies to prevent zoster in these patients are an increasing priority.

Abstract for the 1st European Dermato-Epidemiology Network Forum

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Partner Bereavement and Risk of Herpes Zoster: Results from Two Population-Based Case-Control Studies in Denmark and the United Kingdom

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Abstract (word limit 300 words)

Background: Psychological stress is commonly thought to increase the risk of herpes zoster by causing immunosuppression. However, research on the topic is sparse and inconsistent.
Aim: We conducted two parallel case-control studies of the association between partner bereavement and risk of zoster using electronic healthcare data covering the entire Danish population and general practices in the United Kingdom (UK) Clinical Practice Research Datalink.
Methods: We included patients with a zoster diagnosis from the primary care or hospital-based setting in 1997–2013 in Denmark (n=190,671) and 2000–2013 in the UK (n=150,207). We matched up to four controls to each case by age, sex, and general practice (UK only) using risk-set sampling. The date of diagnosis was the index date for cases and their controls. We computed adjusted odds ratios with 99% confidence intervals for previous bereavement among cases vs. controls using conditional logistic regression with results from the two settings pooled using random-effects meta-analysis.
Results: Overall, the adjusted odds ratios for the association between partner bereavement and zoster were 1.05 (1.03–1.07) in Denmark and 1.01 (0.98–1.05) in the UK. The pooled estimates were 0.72, 0.90, 1.10, 1.08, 1.02, 1.04, and 1.03 for bereavement within 0–7 days, 8–14 days, 15–30 days, 31–90 days, 91–365 days, 366–1095 days, and >1095 days before the index date, respectively.
Conclusion: We found no consistent evidence of an increased risk of zoster following partner death. Initial fluctuations in estimates may be explained by delayed healthcare contact due to the loss.

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Incidence rates of sexually transmitted infections in 'high-risk' men who have sex with men – a meta-analysis of trials and cohort studies on HIV pre-exposure prophylaxis

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Abstract (word limit 300 words)

Background: With the introduction of pre-exposure prophylaxis for the prevention of HIV transmission (HIV-PrEP), an effective form of prevention for men who have sex with men and who engage in high-risk sex practices ('high-risk-MSM') has become available. At the same time, incidence-rates of other sexually transmitted infections (STI) are rising. However, data on the incidence of STI in high-risk-MSM are scarce.
Aim: to analyze data available from published HIV-PrEP studies regarding the incidence of STI in high-risk-MSM
Methods: Medline, Embase and Cochrane CENTRAL were searched for clinical studies of PrEP in high-risk-MSM. Incidence-rates (events/100person-years, py) with 95% confidence-intervals (95%-CI) were calculated from the available data. If possible, the data were meta-analyzed applying a random-effects model.
Results: Nine publications on seven studies met the inclusion criteria.
Seven studies reported data on the incidence of syphilis: four RCTs (9.28/100py, 95%-CI: 7.01-12.29), two cohort studies (9.23/100py, 95%-CI: 5.59-15.22) and one retrospective analysis of insurance data (9.31/100py, 95%-CI: 6.72-12.90).
For gonorrhea, incidence rates were calculated from two RCTs (29.15/100py, 95% -CI: 14.61-58.17), one cohort study (43.00/100py, 95%-CI: 37.52-49.28) and one analysis of insurance data (47.41/100py, 95%-CI: 41.03-54.78). Data on chlamydia infection were comparable [to be presented]. For the combined outcome of rectal gonorrhea and/or chlamydia infection, data were extracted from one RCT (36.56/100py, 95%-CI: 31.46-42.49) and one analysis of insurance data (55.88/100py, 95%-CI: 48.91-63.83).
Regarding hepatitis C infection, an overall incidence rate of 1.12/100py (95%-CI: 0.65-1.92) was calculated (two RCTs, one analysis of insurance data).
Conclusion: Despite heterogeneous study designs and partly heterogeneous results, the data depict high incidence-rates of STI among high-risk-MSM. It is important to bear in mind that the presented data were derived from studies that were not designed to generate data on STI incidences. The data reflect estimates of STI acquisition in 'high-risk-MSM' and are not directly associated with the intake of HIV-PrEP.

Posters

Thursday, March 30th, 2017

Hydrochlorothiazide use and risk of non-melanoma skin cancer

Sidsel Arnspang David Gaist Sigrun Alba Johannesdottir Schmidt
Lisbet Rosenkrantz Hölmich Søren Friis Anton Pottegård

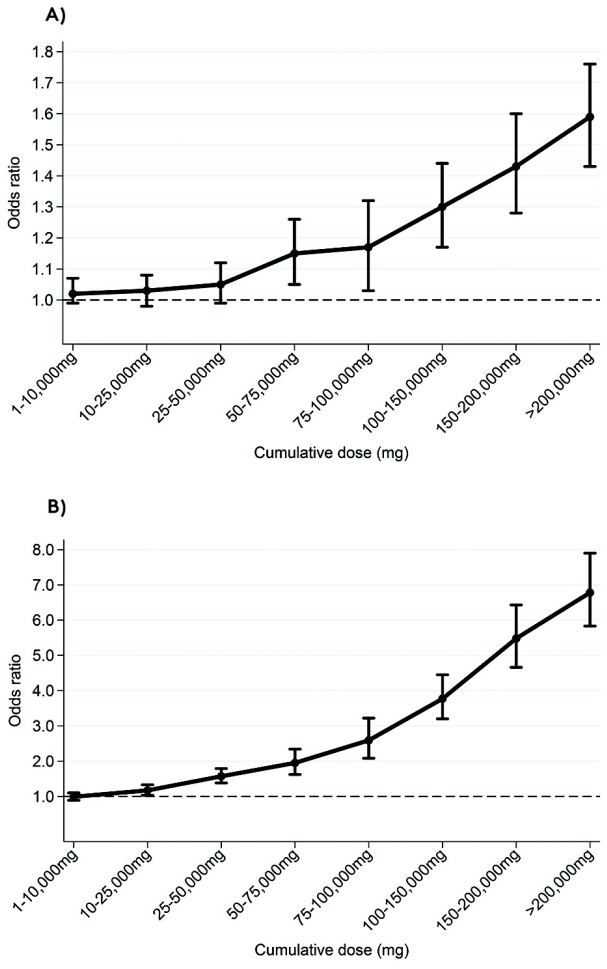
Background
Hydrochlorothiazide is photosensitizing. It is unclear whether hydrochlorothiazide use increases the risk of non-melanoma skin cancer (NMSC) in general. We conducted a nationwide case-control study of the association between hydrochlorothiazide use and NMSC risk using Danish registries.

Methods
From the Danish Cancer Registry, we identified patients with a first diagnosis of basal cell carcinoma (BCC) or squamous cell carcinoma (SCC), between 2004 and 2012. For each case, we selected 20 population controls matched by age and sex using risk-set sampling. Cumulative hydrochlorothiazide use (1995-2012) was assessed from the Danish Prescription Registry. Using conditional logistic regression, we calculated odds ratios (ORs) for BCC and SCC associated with hydrochlorothiazide use, adjusting for pre-defined potential confounders. We also examined dose-response effects and associations with the use of drugs with similar indications as hydrochlorothiazide.

Result
We identified 71,625 cases of BCC and 8,652 cases of SCC. High use of hydrochlorothiazide (≥50,000 mg) was associated with ORs of 1.30 (95% confidence interval [CI] 1.24-1.37) for BCC and 3.80 (95% CI 3.51-4.12) for SCC. Clear dose-response associations were observed between cumulative intake of hydrochlorothiazide and risk of NMSC, which were particularly marked for SCC (Fig A and B).

Conclusions
Hydrochlorothiazide use is associated with a substantially increased risk of NMSC, especially SCC.

Figures
Dose-response pattern between cumulative HCTZ dose and risk of **A)** BCC and **B)** SCC. Error bars represent 95% confidence intervals.



SDU UNIVERSITY OF SOUTHERN DENMARK

Investigating eczema as a risk factor for cardiovascular disease outcomes in a UK adult population

Richard Silverwood,[1] Harriet Forbes,[1] Katrina Abuabara,[3] Krishnan Bhaskaran,[1] Morten Schmidt,[2] Sigrún Alba Jóhannesdóttir Schmidt,[2] Liam Smeeth,[1] Sinéad Langan.[1]

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Introduction

- Traditionally, eczema is considered a disease of childhood. However eczema affects up to 10% of adults (5.8 million people in England) and is becoming more common globally.
- Mechanistic work suggests eczema may be associated with increased platelet activation and decreased fibrinolysis, which may increase clotting risks and hence cardiovascular events. Findings from epidemiological studies are inconsistent.
- This work will inform the long-term care of patients with eczema.

Objectives

- To assess whether adults with eczema are at greater risk of cardiovascular events than adults without eczema.

Methods

Data source

Clinical Practice Research Datalink (CPRD), a database of anonymised primary care records in the UK, and linked Hospital Episodes Statistics. CPRD contains data on approximately 8% of the UK population and is broadly representative of patient and practice characteristics in the UK.

Participants

Patients aged ≥18 years contributing to CPRD between 1st April 1997 and 31st March 2015, with linked HES data, were eligible for inclusion. Incident or prevalent eczema patients, matched (on age, gender, general practice and calendar time) to up to five patients without eczema. Patients with a history of cardiovascular disease were excluded.

Outcomes

Myocardial infarction (MI), stroke (ischaemic, haemorrhagic or unspecified), coronary revascularisation procedures and acute coronary syndromes (MI and unstable angina), identified in CPRD and HES (primary diagnosis fields of any episode). Procedure codes were identified in Classification of Interventions and Procedures data.

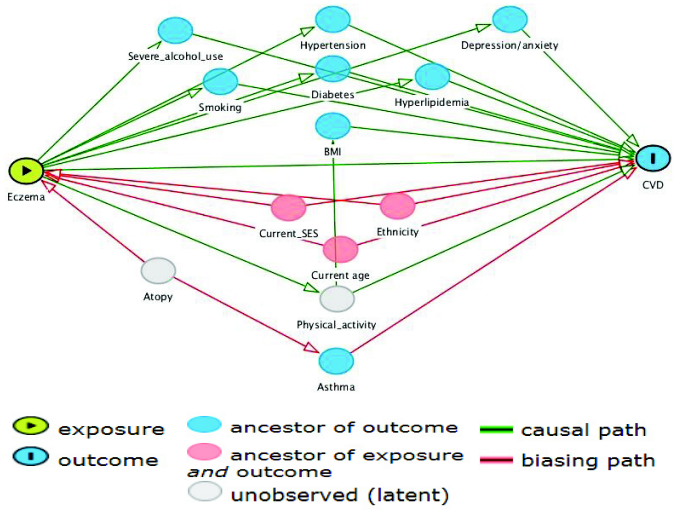

Fig. 1. Directed acyclic graph illustrating implicitly assumed causal structure underlying our adjusted models

Statistical methods

Cox regression with attained age as the underlying timescale, stratified by matched sets, to generate hazard ratios for the association between eczema and first ever stroke, myocardial infarction, acute coronary syndrome or coronary revascularization procedure. We first adjusted for confounders, then subsequently adjusted for potential mediators.

Results

469,453 eczema patients were matched to 2,333,014 patients without eczema.

- 60% female
- Median age 39.9 years (IQR: 26.0-57.9)
- Asthma at baseline more common in the eczema cohort (23.8%) compared to the non-eczema cohort (12.7%)

In model 3, after adjusting for current calendar period (1997-1999, 2000-2004, 2005-2009, 2010-2015), time since diagnosis (0-4, 5-9, 10-14, 15-19, 20+ years), IMD at cohort entry and time-varying asthma there was evidence of a small increased risk of

- Acute coronary syndromes (HR 1.12, 99%CI 1.04-1.20)
- Stroke (HR 1.10, 99%CI 1.02-1.18)
- Coronary revascularization (HR 1.14, 99%CI 1.05-1.24)
- Myocardial infarction (HR 1.06, 99%CI 0.98-1.15)

among eczema patients.

Table 1. Estimated HRs from Cox regression with current age as underlying timescale, stratified by matched set. Fitted to patients non-missing for all variables included in the models.

				Model 1		Model 2		Model 3		Model 4	
	n	P-Y at risk	Events	HR	99% CI	HR	99% CI	HR	99% CI	HR	99% CI
Acute coronary syndromes											
Unexposed	1863240	11308420	29572	1.00	(ref)	1.00	(ref)	1.00	(ref)	1.00	(ref)
Exposed	394087	2626087	7413	1.12	1.08, 1.17	1.13	1.06, 1.21	1.12	1.04, 1.20	1.08	1.01, 1.16
Stroke											
Unexposed	1,863,240	11,340,513	29,670	1.00	(ref)	1.00	(ref)	1.00	(ref)	1.00	(ref)
Exposed	394,087	2,634,719	7375	1.07	1.03, 1.12	1.09	1.02, 1.18	1.10	1.02, 1.18	1.07	0.99, 1.16
Coronary revascularisation											
Unexposed	1,863,240	11,341,421	20,382	1.00	(ref)	1.00	(ref)	1.00	(ref)	1.00	(ref)
Exposed	394,087	2,634,191	5122	1.12	1.07, 1.17	1.14	1.06, 1.25	1.14	1.05, 1.24	1.08	0.99, 1.18
MI											
Unexposed	1,863,240	11,341,159	23,400	1.00	(ref)	1.00	(ref)	1.00	(ref)	1.00	(ref)
Exposed	394,087	2,635,159	5730	1.09	1.05, 1.14	1.07	0.99, 1.16	1.06	0.98, 1.15	1.04	0.96, 1.13

All models implicitly adjusted for gender, date at cohort entry and practice due to stratification by matched set.
Model 1: No additional adjustment.
Model 2: Additionally adjusted for current calendar period (1997-1999, 2000-2004, 2005-2009, 2010-2015), time since diagnosis (0-4, 5-9, 10-14, 15-19, 20+ years), and IMD at cohort entry.
Model 3: Additionally adjusted for time-varying asthma.
Model 4: Additionally adjusted for BMI and smoking at cohort entry, and time-varying hyperlipidemia, hypertension, depression, anxiety and diabetes.

Strengths and limitations

- Largest study exploring eczema as a risk factor for cardiovascular disease.
- Use of a validated algorithm to identify eczema cases.
- Population-based cohort.
- Possible residual confounding by unmeasured variables, specifically, environmental factors (temperature and air pollutants).
- Analyses restricted to individuals with non-missing data for all variables (80% of cohort).

Conclusions

- Initial results suggest that eczema patients have a small increased risk of developing stroke, myocardial infarction, acute coronary syndromes and having a coronary revascularization procedure.
- Consideration could be given to developing prevention strategies to reduce cardiovascular disease risk among patients with eczema.

Acknowledgements

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Atopic dermatitis is associated with anxiety, depression, and suicidal ideation, but not with hospitalization or suicide

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INTRODUCTION

Atopic dermatitis (AD) is a prevalent chronic and remitting pruritic inflammatory skin condition of childhood, which may persist into adulthood. The psychiatric burden of AD may have far-reaching consequences not only for patients and their relatives, but also for health-care providers, payers, and the society as a whole. Using large-scale observational data, we therefore assessed the psychiatric burden, i.e. depression, anxiety, suicidal ideation, suicide, and use of anxiolytics and antidepressants in Danish adults with AD.

MATERIALS AND METHODS

DanfunD questionnaire study

The Danish Study of Functional Disorders (DanFunD) is a general population study with data from 9,656 adult Danish residents thought to be representative of the Danish population.While all participants underwent general health examination, only questionnaire data were used for the present study. Participants were classified as having AD if they fulfilled at least 2 of 4 criteria of a modified UK working party classification for AD, a method that captures individuals who have or previously had symptoms suggestive of AD, but who may not have been given the diagnosis by a clinician. We utilized an algorithm based on the Diagnostic and Statistical Manual of Mental Disorders diagnostic criteria for major depressive disorder to identify patients with depression. Logistic regression models were performed and associations were expressed as odds ratios (ORs).

Health registry study

The registry study comprised all Danish adults ≥18 years old on January 1, 1997. Study start was January 1, 1997 or date of first receiving an adult diagnosis of AD. Patients were classified as having adult AD if they had received a diagnosis of AD by a dermatologist on or after their 18th birthday. Patients were classified with severe AD if they received systemic therapy . The primary study outcomes were diagnoses of depression and anxiety, hospitalization for depression or anxiety, a recorded suicide in the National Causes of Death Registry or a claimed prescription for antidepressants, or anxiolytic drugs.

MATERIALS AND METHODS CONT.

Incidence rates per 1,000 person-years were calculated for all endpoints, and Cox regression models were performed to obtain hazard ratios (HRs). Sensitivity analyses were performed where those with prevalent disease were excluded, i.e. analyses of first-time outcome (no significant changes were observed in the sensitivity analyses compared with the primary analyses). Age- and sex-adjusted, and fully adjusted (age, sex, socioeconomic status, and healthcare consumption) HRs were calculated.

TABLE 1: Hazard ratios with 95% confidence intervals of risk of the examined outcomes in patients with atopic dermatitis compared with the general population

	Age- and sex adjusted			Fully adjusted		
	HR	95% CI	p-value	HR	95% CI	p-value
Depression						
Mild AD	1.22	0.89-1.66	0.2144	0.90	0.66-1.24	0.5264
Severe AD	1.49	1.07-2.08	0.0182	0.98	0.70-1.37	0.8998
Hospitalization due to Depression						
Mild AD	1.35	0.85-2.15	0.1992	1.03	0.64-1.64	0.9157
Severe AD	1.84	1.16-2.92	0.0098	1.24	0.77-2.00	0.3682
Anxiety						
Mild AD	1.26	0.82-1.93	0.2931	1.01	0.65-1.56	0.9773
Severe AD	1.50	0.92-2.45	0.1037	1.09	0.66-1.81	0.7364
Hospitalization due to anxiety						
Mild AD	1.14	0.47-2.74	0.7737	0.88	0.36-2.16	0.7878
Severe AD	2.64	1.32-5.28	0.0061	1.85	0.90-3.82	0.0967
Suicide						
Mild AD	1.01	0.42-2.44	0.9745	0.81	0.33-1.96	0.6403
Severe AD	1.00	0.38-2.66	0.9996	0.73	0.27-1.97	0.5279
Antidepressant drug use						
Mild AD	1.26	1.20-1.34	<0.001	1.00	0.95-1.06	0.8768
Severe AD	1.71	1.62-1.81	<0.001	1.24	1.16-1.31	<0.001
Anxiolytic drug use						
Mild AD	1.39	1.30-1.49	<0.001	1.08	1.01-1.16	0.0251
Severe AD	2.36	2.22-2.50	<0.001	1.66	1.56-1.77	<0.001

Table 2: Baseline characteristics and psychiatric outcomes in AD and non-AD participants in the questionnaire-based DanFunD study

	Total	AD+	Controls
	n=9656	n=1044	n=8612
Age, mean (SD)	52.5 (13.2)	49.8 (13.8)	52.9 (13.1)
Sex, n (%)			
Women	5203 (53.9)	678 (65.0)	4525 (52.5)
Men	4453 (46.1)	366 (35.0)	4087 (47.5)
Smoking, n (%)[a]	1582 (16.4)	172 (16.5)	1410 (16.4)
Moderate/Heavy EtOH use, n (%)[b]	2269 (23.5)	217 (20.8)	2052 (23.8)
Education level, n (%)			
No education beyond high school	998 (10.3)	115 (11.2)	873 (10.2)
Technical school or job training	4622 (48.3)	473 (45.7)	4149 (48.7)
University education	2917 (30.5)	340 (32.9)	2577 (30.2)
Master's degree or higher	1036 (10.8)	106 (10.3)	930 (10.9)
Prevalences of psychiatric comorbidities, n (%)			
Clinician-diagnosed depression	1155 (12.1)	202 (19.5)	953 (11.2)
In the past week to what extent have you been plagued by thoughts to end your own life?			
"Not at all"	9228 (97.5)	971 (96.0)	8257 (97.7)
"A little"	178 (1.9)	34 (3.4)	144 (1.7)
"Some"	41 (0.4)	3 (0.3)	38 (0.5)
"A whole lot"	12 (0.1)	4 (0.4)	8 (0.1)
"Very much"	4 (<0.1)	0 (0.0)	4 (<0.1)
One affirmative response	178 (1.9)	34 (3.4)	144 (1.7)
Modified DSM-V criteria for Major Depressive Disorder	568 (5.9)	112 (10.7)	456 (5.3)
Clinician-diagnosed anxiety	454 (4.8)	77 (7.5)	377 (4.4)
Self-reported frequent anxiety attacks	247 (2.6)	56 (5.4)	191 (2.2)

[a]Daily or occasional use [b]For men, >14 drink equivalents per week. For women, >7 drink equivalents per week

RESULTS

In the general population, those with AD also reported clinician-diagnosed depression and anxiety more often than non-AD subjects, and had an increased prevalence of suicidal ideation and depressive symptoms. In the health registry study, severe AD patients had increased risk of antidepressant and anxiolytic medication use, while patients with mild AD only had increased risk of anxiolytic medication use. There was no increased risk of hospitalization or outpatient contacts due to depression or anxiety, or risk of suicide in AD patients. In the general population, those with AD also reported clinician-diagnosed depression and anxiety more often than non-AD subjects, and had an increased prevalence of suicidal ideation and depressive symptoms.

DISCUSSION/CONCLUSIONS

We found significant associations between self-reported AD and clinician-diagnosed depression and anxiety, respectively, among adults from a population-based survey. More patients with AD reported having suicidal ideation compared with non-AD subjects. However, suicidal ideation remained rare. In the health register study, prevalence of depression and anxiety leading to psychiatric consultation or hospitalization was comparable between AD patients and the general population. Antidepressant and anxiolytic drug use was markedly higher among AD patients. During follow-up, patients with severe AD had increased risk of antidepressants and anxiolytics use. The psychiatric burden of AD appears to be mild, and does not result in treatment by psychiatrists, psychiatric hospitalizations, or suicide.

Is there a relationship between self-reported school performance and eczema?

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AIM
The aim was to study the relationship between eczema and self-reported school performance in pupils at age 15 years.

BACKGROUND
Eczema is estimated as the largest global burden of disability due to skin disease, affecting up to 20% of children (1).
Pruritus, leading to poor concentration and inadequate sleep, in addition to absenteeism from school, eczema could have an adverse impact on school performance. Yet little is known about school performance in children and adolescents with eczema (2).
The relationship between eczema and school performance might be influenced by ADHD, since eczema has been linked to ADHD (3-6). ADHD is characterized by persistent symptoms of inattention, hyperactivity and impulsiveness which may worsen school performance (7).

METHODS
The study is based on cross-sectional data collected in school classrooms with questionnaire among all 15- to 16-year-olds within a Swedish county, with a response rate of over 80%. The questionnaire included background factors, health including self-reported information on eczema and Attention-deficit-hyperactivity disorder (ADHD), and school environment. Logistic regression analyses were performed.

RESULTS
Eczema independently increased the odds ratio (OR) of school performance, even after adjustment for ADHD, sleeping problems, and family structure (adjusted OR1.8, confidence interval 1.2-3.0).

CONCLUSION
Eczema may be a relevant risk factor for lower school performance in adolescents aged 15 years. School nurses and teachers should be aware of the potential impact on school performance that eczema may cause for adolescents.

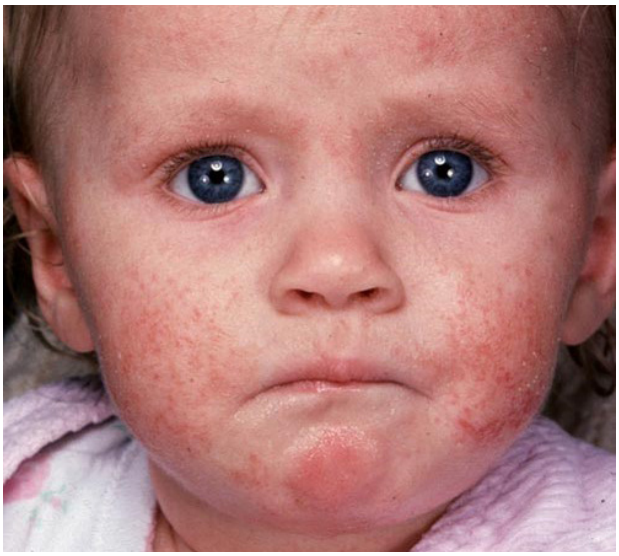

Table 1. The relationship between school performance and ADHD, adjusted for family conditions and sleeping problems.

Outcome school performance	Odds ratio (Confidence interval, 95%)				
Eczema	**2.250*** **	**2.204*** **	**1.805** **	**1.805** **	**1.844** **
	(1.4 - 3.5)	(1.4 - 3.5)	(1.1 - 2.9)	(1.1 - 2.9)	(1.2 - 2.9)
Not living with both parents	**1.783*** **	**1.640*** **	**1.608*** **	**1.608*** **	**1.525** **
	(1.3 - 2.5)	(1.2 - 2.3)	(1.1 - 2.3)	(1.1 - 2.3)	(1.1 - 2.1)
Sleeping problems		**3.518*** **			**3.181*** **
		(2.4 - 4.9)			(2.2 - 4.6)
ADHD			**5.677*** **	**5.677*** **	**4.534*** **
			(3.4 - 9.5)	(3.4 - 9.5)	(2.6 - 7.7)
Constant	0.0429***	0.0298***	0.0401***	0.0401***	0.02***
	(0.03 - 0.06)	(0.02 - 0.04)	(0.03 - 0.05)	(0.03 - 0.05)	(0.02 - 0.03)
Observations	*2,401*	*2,401*	*2,401*	*2,401*	*2,401*

*** p<0.01, ** p<0.05

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Methotrexate versus azathioprine in patients with atopic dermatitis: two years follow up data

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Background

- In a previous publication we described a randomized controlled trial of 42 adults with severe atopic dermatitis (AD) treated with methotrexate or azathioprine for 12 weeks and followed for an additional 12 weeks.
- We here present the 2-years follow-up data of these patients.

Aim

To assess efficacy and safety of methotrexate (MTX) versus azathioprine(AZA) over a 2-year follow-up period.

Methods

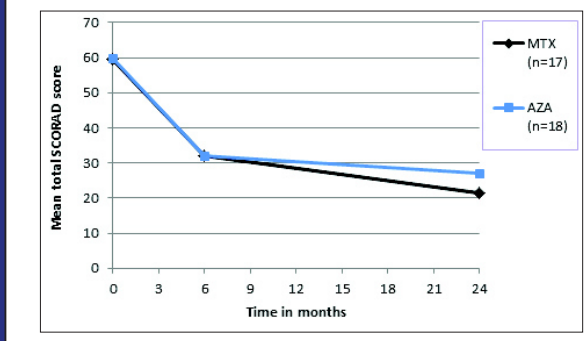
•All 42 patients were asked to participate in an open-label observational follow-up study to be evaluated 3 monthly for 2 years.

•After 12 weeks of treatment with MTX or AZA, treatments were continued, stopped, or switched, reflecting normal clinical practice.

•The primary outcomes were i.e. difference in mean absolute and relative change of SCORing Atopic Dermatitis (SCORAD) and Investigator Global Assessment (IGA) between groups, after 2 years compared to baseline.

•Effect of filaggrin mutations was evaluated as well.

Figure 1. Mean (SD) total SCORAD scores at baseline, 3 months and 24 months (2 years) (intention-to-treat analyses)



AZA, Azathioprine; MTX, Methotrexate.

Results

•Thirty-five out of 42 patients were included. Two years after baseline, 10 patients had used MTX and 8 patients AZA, continuously.

•Both groups maintained a significant reduction in SCORAD and there was no significant difference in effect between groups (both intention-to-treat and per-protocol population).

•No important differences were found in type, number and severity of adverse events.

•Three serious adverse events occurred, 2 exacerbations of AD and 1 hospitalization because of psychiatric comorbidity.

•Patients with a filaggrin mutation seemed to respons slower to therapy than patients without a mutation.

Conclusion

Methotrexate and azathioprine seem to be effective and safe long-term therapies for adult patients with severe AD.

Effects of time and recall of patch test results on health related quality of life (HRQoL) after testing. Cross-sectional study analysing HRQoL in hand eczema patients 1, 5 and 10 years after patch testing.

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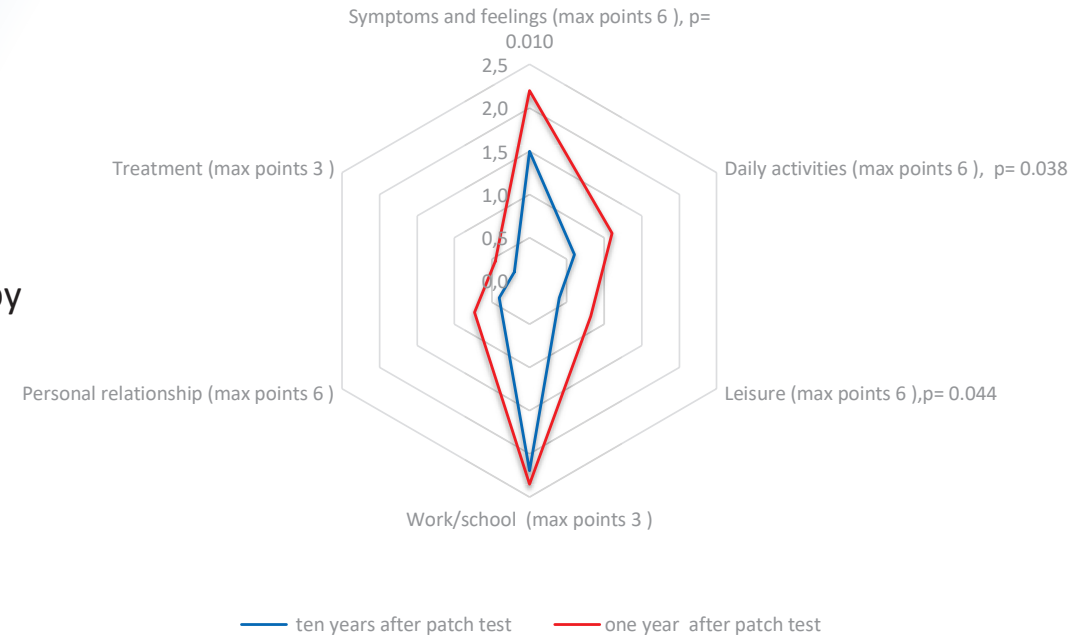
Conclusion

Long elapsed time, in our material ten years after patch testing, has a positive impact on the HRQoL. This improvement is due to patients' adoption of avoidance life styles in leisure time and daily activity. The improvement was not affected by the outcome of testing and patients' recall of test results. Although the improvement, the work aspect remained a major problem.

The mean values of DLQI subscales scores at one and ten years after patch testing



Results

Lower mean DLQI total score in group at ten years after patch testing, mean DLQI=5,5 which is compatible with small effect on patient's life (DLQI scores 2-5), compared to group at one year after patch test, mean DLQI=7,7 which is compatible with moderate effect on patient's life (DLQI scores 6-10). The improvement in HRQoL concerns symptoms and feelings, daily activity and leisure.
The work aspect remained a major problem. After patch testing 77%, 67% and 72% reported their skin prevented them from working or studying at respectively one, five and ten years.

A binary logistic model showed that only time (10 years after testing) was associated with no effect, a light effect or a moderate effect (DLQI < 10) on HRQoL. No such association was seen for patients with negative or positive test results concerning full recall, partial recall or no recall of diagnosed allergens.

Introduction

Patch testing is an objective and cost-effective method used for diagnosing allergic contact eczema. Undergoing patch testing requires increased contact with a dermatologist and this alone temporarily improves quality of life regardless the outcome of patch testing. The aim of this study is to investigate the impact on HRQoL of elapsed time after patch testing (1-10 years), and how the outcome of testing and patients' recall affects HRQoL

Material and Method

Dermatology Life Quality Index (DLQI) is dermatologic specific questionnaire which has been used as a valid measure to assess HRQoL DLQI covers the impact of dermatitis on the HRQoL in the following aspects: symptoms and feelings, daily activities, leisure, work and school, personal relationship and treatment. DLQI questionnaire was sent to all patients (aged 18-65 years) who were patch tested for suspected contact allergy in 2009, 2005 and 2000 at the Department of Dermatology in Örebro.

Validation of a visual aided questionnaire for the self-assessment of hidradenitits suppurativa

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Introduction

Hidradenitis Suppurativa (HS) is a chronic, highly debilitating disease, characterized by recurrent nodules, pain, abscesses and scarring typically affecting armpits, groin, perianal and perineal areas.[1]

Scanty data are available about the real prevalence of this disease in the general population and the estimates available in the literature range from <0.1% to 4%.[2-5] The incidence of HS, however, is still unknown with only one study reporting an estimate of 6.0 per 100,000 persons/year.[6]

For these reasons there still need of epidemiological instruments to easily and accurately detect HS cases in the general population.

The **main objective** of the study was **to develop and validate a visual questionnaire** for HS detection.

Methods

This was a **diagnostic study** on a series of consecutive patients with HS and a corresponding series of age and gender matched controls, in a 1:1 ratio, observed for other unrelated conditions in two centers in Italy.

A simple visual questionnaire was developed assessing the presence to armpits, groin or buttocks, of the following recurrent cutaneous manifestations for at least 6 months (**Figure**): a) nodules or inflamed areas; b) abscesses, fistulas or furuncles; c) retracting scars.

Collected information included: general data and demographics, anthropometric measures, smoking and drinking habits, diagnosis of HS or reason for visit, HS characteristics and severity, family history of HS, presence of comorbidities, the proposed questionnaire and an alternative questionnaire, as previously used by Vinding et al.,[7] assessed for comparison purpose.
A subgroup of HS patients and controls was also randomly selected to assess the **reproducibility** of the two questionnaires after 2 weeks from the first visit.

Measures of diagnostic accuracy, sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were produced along with their exact 95% confidence intervals (CI). Reproducibility of the proposed questionnaire items was tested by using Cohen's kappa along with its 95% CI.

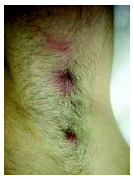
Results

From April to December 2016, 57 patients with HS and 57 matched controls were included in the study. Overall 57.9% of patients were females and the mean age was 32.9 ± 12.3 (mean ± SD) years (**Table1**). The mean BMI was significantly higher in patients with HS (25.5 ± 5.0) than controls (22.8 ± 3.9) as well as the proportion of current smokers (71.9% in cases vs. 29.8% in controls). Other variables were similar distributed among cases and controls. The average disease duration of patients with HS was 11.4 ± 9.2 years , with a mean Sartorius score of 49.9 ± 30.7.

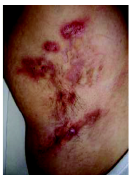
Based on at least one affirmative answer to the proposed questionnaire items (**Table 2**), the **accuracy was 95.6%** (95% CI: 90.1, 98.6), with a sensitivity of 98.2% (95% CI: 90.6, 100.0), a specificity of 93.0% (95% CI: 83.0, 98.1), a PPV of 93.3% (95% CI: 83.8, 98.2) and a NPV of 98.1% (95% CI: 90.1, 100.0). For comparison purpose, the questionnaire of Vinding resulted in a lower accuracy of 91.2% , with a sensitivity of 93.0% and a specificity of 89.5%.

The questionnaire was also tested for reproducibility on a random sub-sample of 20 cases and 20 controls**. Reproducibility was almost perfect** on all the tested items (kappa ≥0.85).

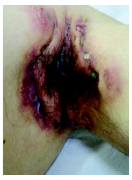
Figure - pictures of typical HS manifestations used in the questionnaire



a)



b)



c)

Table 1 - General characteristics of patients enrolled in the study

		Controls (N=57)		HS patients (N=57)		Total (N=114)	
		N	%	N	%	N	%
Gender	Female	33	57.9%	33	57.9%	66	57.9%
	Male	24	42.1%	24	42.1%	48	42.1%
Age, yrs	(mean, SD)	33.1	12.6	32.6	12.1	32.9	12.3
	< 20	21	36.8%	20	35.1%	41	36.0%
	20 - 34	17	29.8%	20	35.1%	37	32.5%
	35+	19	33.3%	17	29.8%	36	31.6%
BMI, kg/m^2	(mean, SD)	22.8	3.9	25.5	5.0	24.2	4.7
	< 25.0	45	78.9%	31	54.4%	76	66.7%
	25.0 - 29.9	9	15.8%	18	31.6%	27	23.7%
	30.0+	3	5.3%	8	14.0%	11	9.6%
Smoker	No	39	68.4%	14	24.6%	53	46.5%
	Yes	17	29.8%	41	71.9%	58	50.9%
	Ex	1	1.8%	2	3.5%	3	2.6%
Drinking habit	Non-drinker	18	31.6%	18	31.6%	36	31.6%
	Occasional drinker	36	63.2%	35	61.4%	71	62.3%
	Regular drinker	3	5.3%	4	7.0%	7	6.1%

Discussion

In our study we developed a visual questionnaire for HS detection. This was then tested for diagnostic accuracy and reproducibility, resulting in an overall accuracy of 95.6% on HS detection and an almost perfect reproducibility of all the questionnaire items.

Vinding et al.[7] proposed a similar non-visual (single-item) questionnaire that resulted in a lower accuracy of about 93.5%. Our study showed, however, that the overall accuracy of this non-visual questionnaire might be even slightly lower (91.2%), with both sensitivity and specificity below the proposed one.

In this study patients with a diagnosis of HS were matched to controls by age and gender, so we can exclude any bias in results due to group imbalance. We found, however, some differences between the two group regarding BMI and smoking habits, but, as shown in previous works,[6,8] these are typical characteristics associated to HS onset rather than to a selection bias.

Table 2 - Classification of HS based on the proposed visual questionnaire and on the single question of Vinding

		Controls		HS patients	
		N	%	N	%
Proposed questionnaire items					
Nodules	No	55	96.5%	3	5.3%
	Yes	2	3.5%	54	94.7%
Abscesses	No	55	96.5%	11	19.3%
	Yes	2	3.5%	46	80.7%
Retracting scars	No	57	100%	18	31.6%
	Yes	0	0%	39	68.4%
Question - Vinding	No	51	89.5%	4	7.0%
	Yes	6	10.5%	53	93.0%

Conclusion

We developed and tested a diagnostic **questionnaire** for HS detection, resulting in an **high accuracy** and **almost perfect reproducibility**.

The questionnaire should be considered as a **simple and effective instrument for HS detection** in general population surveys as well as other epidemiological studies aimed at estimating the prevalence and incidence of HS.

Further studies may confirm its benefit in real world settings.

Contact

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Study of Human Leukocyte Antigen (HLA) in familial frontal fibrosing alopecia.

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Background:

Frontal fibrosing alopecia (FFA) is a scarring alopecia characterized by recession of frontal and temporoparietal hairline along with loss of follicular openings. Prevalence of FFA has been increasing progressively since its description in 1994 by *Kossard et al*. Aetiology of FFA is still unknown. Despite some reports of familial cases have been published, genetic loci remain poorly characterized.
The aim of this study is to establish a HLA common profile in familial cases of FFA.

Material & Methods:

A cross-sectional study was performed in "Complejo Hospitalario Universitario de Granada", in which 18 patients with FFA belonging to 8 different families were included. All of them fulfilled clinical and dermoscopical criteria of FFA.
Human Leukocyte Antigen (HLA) profile was performed in all families except 2nd and 4th. The HLA profiles were compared to the data of 709 healthy controls with no FFA.

Conclusions:

We report 18 new cases of familial FFA, the largest cases serie hitherto. Moreover, we have found two common HLA-profiles in all of our patients which underwent to HLA-study: first one is HLA-A33, B14 and Cw8; and second one is HLA-B7 and Cw7. Both repeated haplotypes noted in our patients belonged to HLA class I. Interestingly, both haplotypes are not common in general population. Further studies may be needed to clarify the implication of those haplotypes in FFA.

Results:

Two common HLA haplotypes were found in most of patients, referring to HLA class I. First one was HLA A33/B14/Cw8, noted in 8 out of 14 patients (57.14%) compared to 5.92% in the control group. The second one was HLA B7/Cw7, which was observed in 4 out of 14 of patients (28.57%).

Family number	Patient number	HLA class I profile	HLA class II profile
1	1 (sister)	A24,29; **B7**,44; **Cw7**,Cw16;	DR7,10; DQ2,5.
	2 (sister)	A24,**33**; **B14**,35; Cw4,**Cw8**;	DR3,11; DQ2,3.
2	1 (sister)	Not performed	
	2 (sister)	Not performed	
3	1 (mother)	A29,**33; B14**,44; **Cw8**,Cw16;	DR4,13; DQ3,6.
	2 (daughter)	A26,**33; B14**,44;Cw4,**Cw8**;	DR4,7; DQ2,3.
	3 (first cousin of patient 1)	A29,**33; B14**,44; **Cw8**,Cw16;	DR4,13; DQ3,6.
4	1 (sister)	Not performed	
	2 (sister)	Not performed	
5	1 (sister)	A3,11; **B7**,40; Cw3,**w7**;	DR4,15; DQ3,6
	2 (sister)	A2,3; **B7**,44; **Cw7**,w16;	DR7,15; DQ2,6.
6	1 (brother)	A29,**33; B14**,35; Cw4,**w8**;	DR1,13; DQ3,5.
	2 (brother)	A2,**33; B14**,44; Cw5,**w8**;	DR1,13; DQ3,5.
7	1 (sister)	A30,**33;B14**,44;Cw2,**w8**;	DR1,16;DQ5.
	2 (sister)	A30,**33;B14**,44;Cw2,**w8**;	DR1,16;DQ5.
	3 (niece)	A11,30;B8,18;Cw5,**w7**;	DR3 ;DQ2.
8	1 (sister)	A2,11; B35,41; Cw4,w17;	DR7, 11;DQ2,3.
	2 (sister)	A3,11; **B7**,35; Cw4,**w7**;	DR11, 11; DQ3,3.

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