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ABSTRACTS
from
12th Georg Rajka International Symposium on Atopic Dermatitis
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Welcome Address from ISAD 2022 Co-Chairs

Dear Colleagues and Friends,

Welcome to Montréal! Whether you are joining us in-person or virtually, we invite you to embrace, engage, and enjoy the latest emerging science, technology, and expertise that has been developed by our colleagues and that we are proud to showcase for the 12th Georg Rajka International Symposium on Atopic Dermatitis.

After two years of limited meetings face-to-face, we are excited to see you! We look forward to engaging and networking again with our Colleagues – in-person in Montréal or virtually via the conference virtual platform. This year, we are focusing on *Back to our Future… AD in childhood: successes and challenges*.

ISAD was created in 1979 with the primary focus to reunite health care providers, researchers and dedicated associations to expand and disseminate knowledge about the pathogenesis, the treatment of AD and to promote the holistic and personalized care of all patients suffering from it. We hope you enjoy the Scientific Program which has been designed to showcase a global progress using novel methods to understand, assess and manage AD with a patient-focused approach.

We also hope that you will be able to take time to visit our cosmopolitan city, and stunning surrounding regions that are bursting with magnificent fall colors. You will not be disappointed with an autumn weekend in the Laurentians or Charlevoix. We are honored to be hosting you in this uniquely beautiful part of Canada and know you will want to return.

Welcome to Montréal for the 12th Georg Rajka International Symposium on Atopic Dermatitis.

On behalf of the Local Organizing Committee
Danielle MARCOUX, MD
ISAD 2022 General Chair
Sainte-Justine University Medical Center and University of Montréal, Québec

Michele RAMIEN, MD
ISAD 2022 General Chair
University of Calgary, Calgary, Alberta

ORAL LECTURE ABSTRACTS (OL)

OL.1
EMOLLIENTS FOR ATOPIC DERMATITIS PREVENTION: 5-YEAR RESULTS FROM THE BEEP RANDOMISED TRIAL

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Skin barrier enhancement with daily whole body emollients for the first year in babies at high risk of developing atopic dermatitis (AD) did not prevent AD at 2 years in the BEEP multi-centre randomised controlled trial (ISRCTN 21528841). To evaluate a possible delayed protective effect of emollients on AD development or AD severity to 5 years, and if associated food allergy, asthma and hay fever can also be prevented. 1394 term newborns with family history of atopic disease were randomised (1:1) to daily emollient for the first year plus standard skin-care advice (693 emollient group) or standard skin-care advice (701 controls). Long term follow-up at 36, 48 and 60 months of age was via parental questionnaires (online or postal). Main outcomes were parental report of a clinical diagnosis of AD and food allergy. Overall questionnaire completion was 70%. Parents reported a clinical diagnosis of AD between 12 and 60 months for 188/608 (31%) in the emollient group and 178/631 (28%) in control, adjusted relative risk (aRR) 1.10 (95% confidence interval (CI) 0.93 to 1.30). A clinical diagnosis of food allergy by 60 months was reported for 92/609 (15%) allocated to the emollient group and 87/632 (14%) allocated to control (aRR 1.11, 95% CI 0.84 to 1.45). Similar lack of evidence of differences were seen for asthma and hay fever at 36, 48 and 60 months. We did not find any evidence to support a delayed protective effect of emollients to prevent AD, food allergy, asthma or hay fever in the BEEP trial over a 5 year period.

OL.2
REMOTE SEVERITY ASSESSMENT IN ATOPIC DERMATITIS: VALIDITY AND RELIABILITY OF THE REMOTE EASI AND SA-EASI

Aviël Ragamin[1,2], Renske Schappin[1,2], Marie-Louise Schuttelaar[3], Anouk E.M. Nouwen[1,2], Lisanne F. Hoekstra[1,2], N. Tan Nguyen[1,2], Suzanne G.M.A. Pasmans[1,2]

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Reliable remote assessment of atopic dermatitis (AD) severity is necessary to facilitate telehealth. To investigate remote severity assessment by investigating the validity and reliability of the Eczema Area and Severity Index (EASI) based on images. To investigate the role of patient-assessed AD severity using the Self-Administered EASI (SA-EASI). During consultation total-body images were taken from children with AD. Thereafter, caregivers photographed their child's AD at home and completed the SA-EASI. Four raters assessed all images twice. Criterion validity, inter- and intra-rater reliability were evaluated using intra-class correlation metrics and standard error of measurement (SEM) was calculated. Correlation between EASI and SA-EASI was evaluated using Spearman rank correlation 1534 professional and 425 patient-provided images were included from 87 and 32 children, respectively. Excellent (0.90) and good (0.86) agreement was found between in-person EASI and remote EASI based on professional and patient-provided images respectively. Additionally, good inter (0.77), excellent (0.91) intra-rater reliability and acceptable SEM (4.31) was found. Moderate correlation (0.60) between SA-EASI and EASI was found. Remote AD severity assessment strongly correlates with in-person assessment. Good inter- and excellent intra-rater reliability, and acceptable SEM of the remote EASI confirm its feasibility for clinical practice and research. Moderate correlation between SA-EASI and in-person EASI suggest limited value of self-assessment, however more research is needed to understand its potential.

OL.3
ATOPIC DERMATITIS: FACTORS ASSOCIATED WITH AGE OF ONSET IN ADULTHOOD VERSUS CHILDHOOD

Laura Maintz[1,2], Marie-Therese Schmitz[2,3], Nadine Herrmann[1,2], Thomas Welchowski[2,3], Svenja Müller[1,2], Regina Havenith[1,2], Juliette Brauer[1,2], Claudio Rhyner[2,4,5], Anita Dreher[2,5], Eugen Bersuch[2,6], Danielle Fehr[2,6,7], Gertrud Hammel[2,8,9], Matthias Reiger[2,8,9], Daria Luschkova[2,8,9], Claudia Lang[4], Ellen D. Renner[10,11], Peter Schmid-Grendelmeier[2,4], Claudia Traidl-Hoffmann[2,8,9], Cezmi A. Akdis[2,4], Roger Lauener[2,12], Marie-Charlotte Brüggen[2,6,7,13], Matthias Schmid[3], Thomas Bieber[1,2,5]

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Despite increasing evidence for a high rate of adulthood-onset atopic dermatitis (AD), risk factors and (endo)phenotypes are only partly known. Characterization of (endo)phenotypes of

adulthood-onset AD versus (vs.) childhood-onset AD and controls. Cross-sectional data of the CK-CARE-ProRaD cohorts Bonn, Davos, Zürich, Augsburg (903 adults: 736 AD, 167 controls) were analyzed using binary logistic regression, stratification by age at onset of AD (onset≥18years: $n = 174(23.6\%)$;<18y: $n = 562(76.4\%)$) and the models: (1) adulthood- vs. childhood-onset AD, (2) adulthood-onset AD vs. controls, (3) childhood-onset AD vs. controls. Circulating biomarkers were measured in 333 AD patients. Main factors associated with onset of AD in adulthood compared to childhood were daily smoking and trunk eczema, while self-reported allergies showed a negative association. Shared risk factors for both adult- and childhood-onset AD compared to controls were maternal AD, number of atopic stigmata, high levels of eosinophils and tIgE. Main additional associated factors for childhood-onset AD compared to controls were food allergies and palmar hyperlinearity. CDCP1, OPG, CCL-11, GDNF, CXCL9, CST-5, MCP-1, MMP-1 and LIFR correlated with age at onset of AD, but all except of LIFR also with age with different effect sizes. We identified partly shared, but also diverse associated factors of AD with onset in adult- compared to childhood, suggesting varying endo- and exogeneous mechanisms and presentation of AD depending on life period and disease courses.

OL.4
VALIDATING THE USE OF RECAP OF ATOPIC ECZEMA (RECAP) INSTRUMENT TO MEASURE ECZEMA CONTROL OF ADULT PATIENTS IN AN ASIAN CLINICAL SETTING

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RECAP is a self-reported seven-item questionnaire recommended by Harmonising Outcome Measures in Eczema initiative (2019) to measure eczema control. To validate RECAP as a measure of eczema control in our clinical setting with Asian adult eczema patients. Patients with atopic dermatitis (AD) from July 2019 to January 2020 were recruited to complete RECAP, Patient-Oriented Eczema Measure (POEM) and Dermatology Life Quality Index (DLQI). Clinical severity data with SCORAD (SCORing Atopic Dermatitis) and Eczema Area Severity Index (EASI) were collected. Construct validity in the form of correlation analysis and floor or ceiling effects of RECAP were assessed. Qualitative feedback was obtained with structured interview surveys. Results: A total of 260 AD patients aged between 15 to 87 years-old were recruited. Majority of participants were Chinese (87.1%). RECAP scores were normally distributed with a mean score of 13.7($\pm$6.9) and no floor or ceiling effect was noted. There were strong correlations of RECAP with POEM(r=0.84, $p < 0.001$), DLQI(r=0.81, $p < 0.001$) and SCORAD(r=0.60, $p < 0.001$). Discriminative validity was demonstrated by a significant linear trend of RECAP scores with increasing eczema severity by both POEM ($p < 0.001$) and SCORAD ($p < 0.001$). Patients with more severe eczema had higher mean RECAP scores. RECAP demonstrates good construct validity evidenced by strong correlations with symptoms and quality of life and moderate correlations with eczema signs. RECAP is useful to measure eczema control in our Asian clinical setting.

OL.5
PREVALENCE, CLINICAL FEATURES, AND RISK FACTORS OF SEVERITY OF ATOPIC DERMATITIS IN CHILDREN WITH SKIN PHOTOTYPE VI IN SENEGAL

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Atopic dermatitis (AD) is the most common inflammatory skin disease in childhood. But, in sub-Saharan Africa, data on AD in children is scarce. To determine the prevalence, clinical features, and risk factors of severity of AD in Senegalese children with skin phototype VI. A cross-sectional study was carried out on skin phototype VI children under 15 years with AD seen in 2 dermatology centres in Senegal over six months (January 1 to July 1, 2019). The diagnosis of AD was based on the United Kingdom Working Party (UKWP) criteria. AD severity was evaluated using the Scoring of Atopic Dermatitis (SCORAD) index. Among the 630 children consulted during the study period, 104 had AD i.e. a hospital prevalence of 16.5%. The mean age of children with AD was 36 months with a sex ratio of 1. Personal and family history of atopic disease were reported respectively in 86.5 and 84.6% of patients. Xerosis was the most common clinical feature, observed in 80.8% of patients. Post-inflammatory hyperpigmentation and keratosis pilaris were observed respectively in 44.2 and 37.5% of patients. Severe AD was noted in 12.5% of patients. Risk factors associated with the severity of AD were exposure to incense smoke, age of onset before 24 months, food allergy, and impetiginisation. Daily use of shea butter was a protective factor. Our study shows a high hospital prevalence of AD in children with skin phototype VI in Senegal. The result observed with shea butter as a protective factor against severe AD is very important. However, it needs to be confirmed by randomised studies.

OL.6
THE BURDEN OF STIGMA IN PEDIATRIC ATOPIC DERMATITIS: MEASUREMENT USING THE NEW, VALIDATED PROMIS PEDIATRIC STIGMA AND SKIN MODULE

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Mental health issues linked to pediatric atopic dermatitis (AD) may partly result from stigma related to disease severity. We used a new, validated pediatric stigma measure to test our hypothesis that stigma is correlated with AD severity, quality of life (QoL), and mental health. Children with AD completed the PROMIS Pediatric Stigma & Skin Module. Spearman's, ANOVA, and regression analysis were used. Stigma tool showed discriminant validity when comparing mild, moderate, and severe disease (EASI 39.9$\pm$8.9/45.1$\pm$9.2/47.4$\pm$8.4; POEM 37.2$\pm$9.1/44.9$\pm$7.8/48.1$\pm$8.5; CDLQI 38.5$\pm$8.0/44.6$\pm$8.1/51.0$\pm$6.8, $p < 0.01$). Stigma was moderate at baseline (mean t-score=44.1). Child and proxy stigma scores were strongly correlated (Spearman's r=.640), but not with sex or ethnicity. Stigma scores (322 responses from 180 children) were moderately to strongly correlated with Itch NRS (r=.79) and PROMIS depression (.55), psychological stress (PS) (.53), anxiety (.50), sleep impairment (.50), fatigue (.49), sleep