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**Prevalence of skin cancer, photoprotection behaviors, and photoaging in a southeast Asian population**



Monthanat Ploydaeng, Division of Dermatology, Faculty of Medicine, Ramathibodi Hospital, Mahidol University; Natta Rajatanavin, MD, Division of Dermatology, Department of Medicine, Faculty of Medicine, Ramathibodi Hospital, Mahidol University; Prinpat Pinyowiwat, MD, Division of Dermatology, Ramathibodi Hospital

Background: Thailand is located in tropical area and exposed to high intensity sunlight all year round. However, the information regarding skin cancer, photoprotection behavior, and photoaging is limited.

Objective: To evaluate the prevalence of skin cancer, photoprotection, behaviors and photoaging in Thai population.

Methods: A cross-sectional study was conducted in 2018-2019 as a part of Longitudinal Study of Cardiovascular and Metabolic Risk in Electricity Generating Authority of Thailand project. The information regarding photoprotection behaviors were obtained from questionnaires. Photoaging and skin cancer were assessed by clinicians and confirmed by skin biopsy.

Results: Total of 2420 participants were enrolled. Mean age was 54.6 years old (34-74). Most participants were male (67%), working indoor (90%), highly educated, and with high income. They had mean sun exposure of  $1.8 \pm 1.3$  hours/day. Majority of our participant (82%) used at least one of many photo-protection means such as sunscreen (37.4%), hat (36.5%), long sleeve (29%), and umbrella (26%). According to the photoaging score from Korea, 58.2% of participants had wrinkle grade of 0-3 and 68.2% had pigmentation grade of 0-2. After age adjustment, photoaging was associated with smoker, prolonged sun exposure and lack of protection ( $P < .05$ ). Three participants had NMSC and the prevalence of skin cancer was 0.12%.

Conclusions: In well educated, high-income and indoor worker Thai population, the prevalence of NMSC and photoaging score were low. In this population, photoaging was associated with smoking, prolonged sun exposure, and lack of sun protection.

*Commercial disclosure: None identified.*

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**Treatments of C1 leg veins with long pulsed 755-nm and 1064-nm lasers**



Huyen Tran Ngoc Nguyen, Department of Dermatology, Phan Ngoc Thach University of Medicine; Van The Trung, MD, PhD, University of Medicine and Pharmacy, Ho Chi Minh City

Background: Long-pulsed 755-nm Alexandrite (LP755) and 1064-nm Nd:YAG laser (LP1064) are effective treatments of C1 leg veins (telangiectasia and reticular veins). However, no direct clinical comparison of these two methods' efficacy has been done.

Objective: To compare clinical efficacy and side-effects of LP755 and LP1064 in treatment of C1 leg veins (CEAP classification).

Methods: Patients with symmetric matched areas of C1 leg veins were treated with a single session of LP755 on the left and one of LP1064 on the right leg based on automatic setting parameters and clinical end points. Treated area on each side was divided into  $2 \times 2$  cm<sup>2</sup> squares. Square with the highest density of vascular lesion on each leg was selected for evaluation. Results were vascular reductions after 1 month. Side-effects were recorded immediately and 15 minutes, 24 hours, and 1 month after treatment.

Results: 22 patients were enrolled with a total of 106 vessels on the left side, 96 vessels on the right side in 22 investigated squares each side. The reductions obtained on each patient varied from 0% to 100% with medians of 93.75% and 100% (left and right side, respectively). Medians of overall vascular reduction were 71.7% and 71.89% on the left and the right side respectively and not different significantly. Median pain index was 5/10 on the left and went up to 7/10 on the right side.

Conclusions: Treatments of C1 leg veins with LP755 and LP1064 attain similarly favorable results; however, LP1064 causes severe pain during procedure.

*Commercial disclosure: None identified.*

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**Long-term efficacy and safety of dupilumab in adolescents with atopic dermatitis: Results from an open-label extension trial (LIBERTY AD PED-OLE)**



Andrew Blauvelt, Oregon Medical Research Center, Portland; Emma Guttman, MD, PhD, Icahn School of Medicine at Mount Sinai; Iftikhar Hussain, Vital Prospects Clinical Research Institute, PC; Zhen Chen, PhD, MS, MA, Paola Mina-Osorio, Regeneron Pharmaceuticals; Ana Beatris Rossi, MD, Sanofi Genzyme, Ashish Bansal, MD, Regeneron Pharmaceuticals

Background: In the USA, dupilumab is approved for treatment of patients aged  $\geq 12$  years with moderate to severe atopic dermatitis (AD). Here, we report efficacy and safety data from 299 adolescent patients ( $\geq 12$  to  $< 18$  years) with moderate to severe AD who had previously participated in a phase 2a study of dupilumab (AD-1412, NCT02407756) and subsequently enrolled in an open-label extension (OLE) study (LIBERTY AD PED-OLE, NCT02612454).

Methods: In the phase 2a study, patients received a single weekly dose of dupilumab (2 mg/kg or 4 mg/kg) for 5 weeks. In the subsequent OLE study, patients continued weekly dupilumab (2 mg/kg or 4 mg/kg). We evaluated efficacy and safety data from the OLE study ( $n = 299$ ) with a data cutoff date of March 29, 2019.

Results: At week 52, 46/106 (43.4%) of patients achieved an Investigator's Global Assessment (IGA) score of 0/1. The mean percent change (standard deviation) in Eczema Area and Severity Index (EASI) from the AD-1412 baseline to week 52 of the OLE study ( $n = 104$ ) was  $-83.6\%$  (23.3). 84/104 (80.8%) of patients achieved  $\geq 75\%$  reduction from baseline in EASI (EASI-75) relative to their AD-1412 baseline. Treatment-emergent adverse events (TEAEs) were reported in 74.2% of patients; 18.1% of patients had a drug-related TEAE. The most common TEAEs were nasopharyngitis (21.1%), atopic dermatitis exacerbation (19.4%), upper respiratory tract infections (12.4%), headache (9.4%), and oropharyngeal pain (5.7%). Five patients reported serious TEAEs, of which none were treatment-drug related.

Conclusions: Data from this open-label extension trial of dupilumab support the long-term efficacy and safety of dupilumab in adolescents with AD.

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**Incidence of hepatic fibrosis in psoriasis patients receiving methotrexate and acitretin combination therapy in a tertiary-care hospital in Thailand**



Prinpat Pinyowiwat, MD, Division of Dermatology, Ramathibodi Hospital; Ploysyne Rattanakaemakorn, MD, Mahidol University; Wimolsiri Iamsung, MD, MSc, Division of Dermatology, Faculty of Medicine Ramathibodi Hospital, Mahidol University

Background: Methotrexate and acitretin are both effective in psoriasis. There has been limited reports of concomitant therapy due to a theoretical concern of potential hepatotoxicity. However, a comparative study demonstrated that the combination therapy exhibited higher effectiveness in remitting psoriatic lesion, and less fibrogenic effect on liver compared with monotherapies.

Objective: To investigate incidence of and clinical factors associated with liver fibrosis in psoriatic patients receiving concomitant methotrexate and acitretin.

Methods: A retrospective study was conducted on 70 psoriatic patients received methotrexate and acitretin concurrently from 2008 to 2017. Liver fibrosis was determined by transient elastography  $> 7$  kPa. Clinical factors including demographic data, metabolic indices, cumulative dose of methotrexate and acitretin prior and post combination therapy were evaluated. Cox regression analysis was used for the major outcomes.

Results: Hepatic fibrosis was found in 3 patients (4.29%) during concomitant methotrexate and acitretin. Incidence rate of hepatic fibrosis was 0.15% per month. Total follow up time was 2016.4 person-month. Age, gender, risk of methotrexate toxicity, obesity, diabetes mellitus including cumulative dose prior and post concurrent therapy were not significantly associated with hepatic fibrosis. Nine patients (12.86%) achieved PASI75. Significantly less achievement of PASI75 was found among patients receiving higher cumulative dose of methotrexate.

Conclusions: Based on this study, the incidence of hepatic fibrosis is relatively low. Therefore, combination of methotrexate and acitretin may be optional in patients who are unresponsive to monotherapy. It is not contraindicated in psoriatic patients who could benefit from combined acitretin and methotrexate.

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