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Clinical characteristics of patient with infantile hemangioma in dermatology outpatients
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Background: Infantile hemangioma (IH) are the most common tumor of infants and childhood. The Hemangioma Activity Score (HAS) (0-13) and the Hemangioma Severity Scale (HSS) (2-56) are recently developed to measure disease severity. However, there is little data regarding on clinical characteristics and severity scoring of infantile hemangioma visiting dermatology outpatient in Korea.

Objectives: To understand the characteristics of IH, we retrospectively reviewed the disease severity and characteristics in IH outpatients of the local university hospital.

Methods: Those who first diagnosed with IH and had never been treated for IH were the target population. And, sixty-four infants with IH from January 2011 to April 2017 was enrolled in this retrospective study.

Results: The ratio of female to male was 3:1 and the mean age was 3.98 months at the time of visit. The most common occurrence was the face (46%), followed by the trunk (23%). The most common colors were bright red (40%), followed by shining red (23%). The average HAS score was 10.25 and HSS score was 4.64. The mean size of the lesions was 2.74 cm and 3.9 cm respectively on the facial and non-facial (scalp, neck and other body regions) area.

Conclusion: The standard first-visit outpatient for infantile hemangioma is a 4-month-old girl with 2.7 cm hemangioma on the face, with a HAS of 10 and a HSS of 4.5. This retrospective analysis can enhance the clinical understanding of the infantile hemangioma in the outpatient setting.

Keyword: Clinical characteristics, Hemangioma activity score, Hemangioma severity scale, Infantile hemangioma, Retrospective review

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Congenital hemangioma : experience of a single center


Background: Because congenital hemangioma (CH) has apparently different clinical course compared with other vascular anomalies including infantile hemangioma (IH), it is necessary to distinguish CH from them. However, clinical features of CH in Korean patients are not fully elucidated until now.

Objectives: To identify clinical features of CH differentiating from other vascular anomalies.

Methods: A review of the medical records and serial clinical photographs of patients with CH between 2008 and 2017 at Pusan National University Hospital was performed.

Results: We enrolled 21 cases including 12 rapidly involuting CH (RICH), 5 partially involuting CH (PICH) and 4 non-involuting CH (NICH). The male to female ratio was 1.33. Fifteen lesions located on the extremity, three on the trunk and other three on the face. All of them presented a single lesion and the size (largest diameter) of CH was mean 3.3 cm. The shapes were oval in 18 and round in 3 patients. Lesional surface was mostly characterized by dark-red and blue hue with coarse telangiectasia. In RICH, coarse dark-red (75.0%) was preferred and in PICH, dark-red with blue hue (60.0%) was mainly shown. Coarse telangiectasia was shown in 9 cases (42.9%) and peripheral blanched halo was observed in 13 cases (61.9%). RICH and PICH began to involute shortly after birth and the mean time to flattening of RICH was 6.3 months (range: 2-18 months).

Conclusion: This study would help better understand clinical features of CH.

Keyword: Clinical features, Congenital, Hemangioma

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Associations between air pollutant levels and medical care visits for atopic dermatitis
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Background: The prevalence of Atopic dermatitis (AD) is rising in most industrialized countries, and it causes increased burden and costs in public health systems. Over the past decades, studies for effects of air pollution to human health were conducted and revealed considerable evidences that air pollutants cause increased risk of medical care visits for AD.

Objectives: To estimate the effect of air pollutants on hospital visits of AD in Incheon and analyse the associating factors.

Methods: The study subjects were any medical care visits for atopic dermatitis in 2012–2015, which were identified by national health insurance claims data in Incheon, Republic of Korea. Air pollutants considered in this study were obtained from the Ministry of Environment.

Results: When using the pollutant levels of the current day and cumulative models to day 7, higher PM10, O3, and SO2 significantly increased the risk of medical care visits for atopic dermatitis. In contrast, NO2 and CO showed an inverse association with medical care visits for atopic dermatitis. There were no remarkable differences across age, gender and insurance groups in the risk for medical visits for atopic dermatitis. Higher risks were shown in those with previous AD diagnosis (PM10 and SO2) and those with allergic rhinitis (PM10, O3, and SO2).

Conclusion: This study suggests that exposure to PM10, O3 and SO2 increase the hospital visit of AD in short-term period. Significant variables are underlying disease such as AD and allergic rhinitis.

Keyword: Atopic dermatitis, Air pollutant, Particulate matter, Ozone, Sulfur dioxide

P206
Optimization of cytokine milieu to reproduce atopic dermatitis-related gene expression in HaCaT keratinocytes

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Background: Although atopic dermatitis (AD) has been characterized by predominant Th2 cytokines, Th1 cells are also involved in AD pathogenesis.

Objectives: This study was to identify in vitro cytokine milieu that can accurately reproduce the expression profile of genes important in AD.

Methods: mRNA levels of CCL22, CCL17, IL5, IL13, FLG, and LOR were evaluated by qRT-PCR in skin samples from 6 AD patients, 12 healthy controls, and HaCaT cells cultured variously with Th1 (TNF-α, IFN-γ) and/or Th2 (IL-4) cytokines. Cytokine effects on HaCaT cell growth were examined by phase-contrast microscopy and WST-1 assay.

Results: Cell viability was not altered by treatment with TNF-α, IFN-γ, or IL-4 alone, or by combination of TNF-α and IL-4. Expression of Th2 genes (CCL22, CCL17, IL5 and IL13) was increased in human AD skin lesions, while cornified cell envelop-related FLG and LOR were reduced. Interestingly, similar HaCaT cell gene expression profiles were observed when stimulated with Th1 cytokines, but not with IL-4, implying that Th1 stimulation is required to reproduce the AD-like features in HaCaT cells.

Conclusion: Collectively, Th1 and Th2 cytokines do not seem to function dichotomously, and a complex inflammatory network drives AD-like changes. Further in vitro experiments using HaCaT cells to study AD-related genes would need stimulation with various cytokine combinations not limited to Th2 polarization for optimal gene expression.

Keyword: Atopic dermatitis, Cytokine milieu, HaCaT keratinocytes, Gene expression

P207
New therapeutic agent against Propionibacterium acnes for the treatment of acne

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Background: Conventional therapeutic agents used for treatment of Acne are associated with various adverse effects necessitating development of safe and effective alternative therapeutic agents. In this study, a polyherbal formulation HPE/HVW was developed for treatment of Acne.

Objectives: To evaluate antimicrobial activity of HPE/HVW.

Methods: The disk diffusion susceptibility method was