Androgenetic alopecia (AGA) is known to be associated with elevated androgenic hormone levels or increased response to the hormones. It is assumed that clinical and laboratory manifestations of juvenile groups may be different from adult groups, because of different response rates to the sex hormones. Herein, we performed a retrospective study to assess clinical and laboratory findings of juvenile group with AGA. We reviewed medical records of patients who were diagnosed as AGA before 19 years old. Total 54 patients with juvenile AGA (diagnosed before 19 years) were reviewed, and we assessed their past medical histories and laboratory results such as hemoglobin, hematocrit, TIBC, ferritin, BUN, Cr, glucose, SGOT/PT, TG, cholesterol, testosterone and DHEA-S. As results, medical histories of juvenile AGA group showed different aspect compared to the adult AGA population, that is, prevalence of suspected lupus erythematosus was high (4%). Patients with other medical histories (hypertension, diabetes mellitus and cardiovascular diseases) were not detected. Sex ratio (Male:Female) was 1.7:1. In the aspects of the degrees of alopecia, only two patients (3.7%) showed moderate to severe degrees (more than degree 2 of M and V types of BASP classification). Also, average levels of the laboratory findings listed above did not show any abnormal findings.

Key Words: Juvenile androgenetic alopecia, BASP type

P168

Epidemiologic and clinical profiles of Korean androgenetic alopecia patients: A 10 year retrospective study (2002-2011)
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Androgenetic alopecia (AGA) is the most common form of hair loss in people with a genetic predisposition for baldness. Several studies have investigated the association between factors related to metabolic syndrome and AGA. We evaluated the family history, medical history and clinical features of patients with AGA who have visited to Department of Dermatology, Wonju Christian Hospital through medical records and photographs. 1,206 patients with AGA were assessed over a 10 year period. The male to female ratio was 1.6:1 being most prevalent in the 3rd and 4th decade. 14% had family history of AGA, which revealed more higher prevalence of paternal side (43%) than maternal side (21%). About one quarter of patients were treated with various medications. 33% of them applied minoxidil and 29% took finasteride. Among the 87 patients who were assessed by BASP classification, 41% of them were classified as M type and 62% were F type. 42% of patients had medical problems, which the most common accompanying disorders was hypertension (7%) followed by diabetes mellitus (5%) and hypercholesterolemia (3%). Based on these results, AGA patients did not show definitively higher prevalence of metabolic diseases than the general population without AGA in Korea. These findings are different to previous studies mainly conducted from Caucasian ethnicity. We assume that these findings may be related to racial difference.

Key Words: Androgenetic alopecia, Retrospective study, Epidemiologic study

P169

The changes of integral hair lipids might be related to hair cycle
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Integral hair lipid (IHL) plays key roles in maintenance of structural integrity of hair. IHL is composed of ceramide, cholesterol, free fatty acid, cholesterol sulfate, fatty alcohol and phytosphingosine. It has not been studied whether there are any relationship between IHL and hair cycle. In this study, we investigated the contents of IHL and expressions of genes related to lipid synthesis according to the hair cycle. As results, the expressions of genes related to lipid synthesis, Neutral ceramidase (nCDase), acetyl-CoA carboxylase (ACC), fatty acid synthase (FAS), stearoyl-CoA desaturase (SCD), and sterol regulatory element binding proteins (SREBPs) were markedly decreased in catagen hair follicles. To determine the amount of IHL, HPTLC was performed. During the transition phase from anagen to catagen, lipid contents were markedly
decreased in catagen hair follicles, especially free fatty acids and was ester. These results suggest that changes of IHL might be related to hair cycle.
Key Words: Hair cycle, Integral hair lipid

P170

Epidemiologic characteristics among juvenile alopecia areata patients: A retrospective study of 157 patients from Korea
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Alopecia areata (AA) is a common cause of nonscarring alopecia and considered an autoimmune disease with undetermined pathogenesis. To study the clinical and epidemiologic profile of juvenile alopecia, we performed a survey in which a total of 157 patients younger than 18 years old were enrolled. The male: female ratio was 1:1.2. The median age of onset was 10.6 years old and the mean disease duration was 5.9 months. 28% (44 cases) patients had past medical histories (atopic diseases and autoimmune diseases) and the most common disease was atopic dermatitis. The early onset group showed more severe types. In this survey, 79.9% (125 cases) patients had common type showing one to four coin shaped alopecia patches. 20.1% (32 cases) patients had severe type showing large and severe patchy alopecia (9%, 18cases), alopecia totalis (1%, 2cases) and alopecia universalis (10%, 12cases). In this study, we checked several lab findings including Hb, Hct, BUN/Cr, AST/ALT, fT4, and ANA. There were no noticeable differences between the various lab tests. This retrospective study reveals some clinical characteristics of Korean juvenile alopecia areata patients.
Key Words: Juvenile alopecia areata, Korea

P171

Epidemiologic characteristics and comorbidity profiles among alopecia areata patients - a retrospective study of 871 Korean patients

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Alopecia areata (AA) is an autoimmune disease that presents as patchy, nonscarring hair loss, affecting about 2% of the population. AA is thought to occur in association with autoimmune diseases such as thyroid disorders, atopic dermatitis. Only a few studies have been investigated about clinical profiles of Asian AA patients. In this study, we have performed retrospective study of 871 patients who were diagnosed as alopecia areata in the last 10 years at Yonsei Wonju Christian Hospital, Department of Dermatology. Male to female ratio was 1:1.01, the mean age at presentation was 34.1 years. The peak age was in the thirties in male, and forties in female. The frequencies of the following associated diseases were: hypertension, 3.4%; diabetes mellitus, 2.2%; hypercholesterolemia, 0.9%; thyroid disease, 4.4%; atopic dermatitis, 5.2%. These findings are similar to those reported in a study of 219 Singapore patients. To evaluate other possible associated abnormalities, we have done serologic tests on the first day of visit to the clinic, including anemia test, thyroid function test, glucose level, lipid profiles, liver enzymes, male hormone levels and autoimmune test. As results, no remarkable abnormalities revealed in the laboratory results. Although there are some limits of this study because of the retrospective design, this study has an importance that epidemiologic research is done in a large group of Asian AA patients.
Key Words: Alopecia areata, Clinical profile, Asian

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The effect on the hair growth of combination therapy of microneedle roller and hair tonic with and without phytosphingosine-1-phosphate in female pattern hair loss
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Phytosphingosine-1-phosphate is an analogue of sphingosine-1-phosphate that is a kind of lipid mediator known to regulate angiogenesis, cell migration and proliferation. A