

OP III-4

The Effects of POMC Peptides on the Immune System of the Hair Follicle

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Proopiomelanocortin (POMC) peptides as well as their cognate receptors may assist in the maintenance of the peculiar immune privilege of the hair follicle.

Hair follicle is a widely available and instructive immune privilege (IP) mini organ in human body that it can be used for a model of studying the maintenance, collapse and restoration of IP. And there are various regulation factors acting on the generation, maintenance, and collapse of hair follicle IP. It is well known that neuropeptides originated from POMC are created in many organs including skin and display various immune regulation effects. The purpose of this study is to investigate the phenotypic effect of POMC peptides on the hair follicle IP and, therefore, to provide further understanding about the effect of POMC peptides on the immune system of the hair follicle.

We used a potent catagen inducer-interferon- $\gamma$  to make ectopic MHC class I expression hair follicle model in cultured human hair follicles, and then, we examined the effects of POMC peptides on the regulation of ectopic MHC class I expression in cultured human hair follicles using Reverse Transcriptase-Polymerase Chain Reaction (RT-PCR) and immunohistochemical stain technique.

As results, 10-6M  $\alpha$ -MSH, 10-7M ACTH and 10-6M  $\beta$ -endorphin inhibit IFN- $\gamma$  induced HLA-B mRNA transcription, down-regulate INF- $\gamma$  induced ectopic HLA class I expression and MHC class I-pathway related molecules  $\beta$ 2-microglobulin expression, indicating POMC derived peptide are promising candidates for IP restoration.

OP III-5

Effect of IGF-I on the Various Factors to Control Hair Follicle Growth

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Objectives: Insulin-like growth factor-I (IGF-I) shares high degree of structural and functional homology with insulin and is a potent mitogen supporting cell growth and survival in many kinds of the tissues and cells. It also plays a role in some differentiation and anti-apoptotic function. IGF-I stimulates hair follicle growth, maintain anagen stage and postpones catagen stage. But the exact mechanism of the effect of IGF-I on the hair follicle growth is not yet clearly proved. We investigated the relationship between IGF-I and other various factors (ex. apoptosis related molecules, pro-inflammatory cytokines, other growth factors, etc.) to control hair follicle growth.

Approach: We performed hair follicle organ culture with two experimental groups. One is IGF-I treated group and the other is control group. We also performed RT-PCR at 2,4,6,8 day of organ culture.

Results: We observed that IGF-I increased PDGF-A, PDGF-B and expression ratio of Bcl-2/Bax.

Conclusion: These results show that effect of IGF-I on the hair growth is related with anti-apoptotic effect of IGF-I and up-regulation of PDGF-A and PDGF-B.

OP III-6

국소 스테로이드 제제 사용에 관한 대학 병원 피부과 외래 환자의 인식도 및 행태 설문 조사

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피부과 환자가 약품의 정확한 성분과 용도, 효과와 부작용 등에 대해 올바르게 인식하고 사용하는 것이 중요한데 현재 까지 국내에서 피부과 외용제 사용과 관련된 환자의 인식도와 행태에 대한 조사나 보고는 거의 없는 실정이다. 이번 연구는 가톨릭대학교 의과대학 강남성모병원 피부과 외래에 내원한 환자들을 대상으로 설문지를 이용하여 국소 스테로이드 사용에 관한 인식도와 사용 행태에 대하여 알아보려고 하였다. 국소 스테로이드제의 구입 경로는 피부과 의사의 처방을 받은 경우가 53.8%였고, 전문 의약품