

These results indicate integrated interaction of androgen and female hormones is essential in menstrual acne flaring.

P086

창포의 *Propionibacterium acnes* 여드름 균주에 대한 항균효과

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창포는 천남성과에 속하는 식물로서 항균 및 항염증 작용이 있다고 알려져 있지만 이에 대한 연구는 미비하다. 그래서 본 연구에서는 창포의 여드름 균주 *Propionibacterium acnes* (*P. acnes*)에 대한 MIC와 MBC 등을 측정하여 창포의 *P. acnes*에 대한 항균 효과를 증명하고자 하였다. 실험 방법으로 *P. acnes*의 성장 속도를 알아보기 위해 액체배지에 균을 접종한 후, 37°C에서 혐기성 배양하여, 56시간 동안 매 4시간마다 시료를 채취하여 흡광도 (600 nm)를 측정하였다. MIC는 창포 추출물이 농도별로 처리된 배지에 균을 접종하여 32시간 동안 배양한 후 흡광도를 측정하고 MBC는 MIC에서 획득한 균 배양액을 10^{-7} 으로 희석하여 평판배지에 도말 하였다. 성장저해 측정은 McFarland 0.5 농도로 균 현탁액을 만든 후, 기본배지에 도말 하고 창포 추출물을 농도별로 디스크 위에 떨어뜨린 후, 48 시간 동안 배양하였다. 실험 결과 *P. acnes*는 액체 배지에서 접종 후 32 시간이 지나자 성장이 최대에 도달하였다. MIC는 2.5 mg/ml 이상이었고, MBC는 10 mg/ml 이상으로 그 이후의 농도에서는 *P. acnes* 균주가 발견되지 않았다. 성장 억제 실험에서는 디스크 주위로 농도가 높을수록 억제 구역의 지름이 더 크게 나타났다. 결과적으로 창포 추출물은 여드름 균주인 *P. acnes*에 대한 항균 효과가 있음을 확인하였다.

P087

Automatic acne lesion count program with digital image processing: objective, reproducible method

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Severity grading of disease is very important for clinicians and researchers. However, there have several drawbacks in acne evaluation tools. Some acne grading methods, which depend on overall impression, require long training and there is also much probability of significant variability between raters, even trained dermatologists. Lesion count provides fair reproducibility but it takes long time. Great advancement of photographic and computer program technology can provide a solution of these problem. Digital camera with enhanced photo condition enables clinician and researchers to acquire images with enough quality to be analyzed with computer. We developed ideal image acquiring condition to use cold cathode fluorescent lamp and adopt the optimizing camera condition. In addition, automatic lesion count by 5 subtype (papule, nodule, pustule, whitehead comedo, blackhead comedo) program was made with image processing. Furthermore, the usefulness of the automatic lesion count program was assessed by comparing with manual count and Leeds acne grading done by expert dermatologists. Sensitivity and specificity of lesion count program is over 70% in papule, nodule, pustule and whitehead comedo. Comparing with manual count, great correlation was revealed in papule, nodule, pustule and whitehead ($r > 0.9$). Comparing with Leeds acne grading, good correlation was shown in papule and whitehead comedo ($r = 0.89$ and 0.7).

P088

The efficacy of liposome encapsulated 0.5% 5-ALA for the treatment of acne

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Photodynamic therapy using topical 5 aminolevulinic acid (5-ALA) has been proposed as a treatment option in acne vulgaris, but at least 48-hour sun avoidance after treatment was strongly recommended due to the risk of post-treatment photosensitivity. Recently, lower concentration form of 5-ALA was introduced to minimize the risk. The aim of this study was to evaluate the efficacy and safety of liposome encapsulated 0.5% of 5-ALA (PhotoSpray[®], DDD, Denmark) in photodynamic therapy of inflammatory acne and its effects on sebum secretion in Asian skin. Thirteen Korean subjects with mild to severe acne (mean age 24.6 years) were enrolled in this study. Aminolevulinic acid