nodularis (PN) patients, do not sufficiently respond to strong steroids, possibly due to low penetration rate of drugs in thickened skin. This study was performed to investigate if applying biodegradable microneedle (MN) patch after topical steroid increases the penetration of topical steroids and treatment efficacy in PN patients. The penetration rate was measured by Franz diffusion cell system using 3D skin. Patients who have bilateral symmetrical PN lesions were included. Both right and left sides were treated with topical steroid twice a day and only right side was applied with biodegradable MN patch after topical steroid once a week. The penetration of topical steroid was significantly higher in biodegradable MN applied 3D skin equivalent than non-applied 3D skin equivalent. Area and height of PN decreased after 4 weeks of treatment in both sides; however, biodegradable MN patch applied side showed more decrease in area and height of PN compared to non-applied side (p < 0.05). Visual analog scale was also significantly lower in biodegradable MN applied side (p < 0.05). Our results demonstrated that applying biodegradable MN patch after the use of topical steroid can enhance the penetration of topical steroid and increase the treatment efficacy. Therefore we suggest that this novel patch can be used efficiently in PN treatment.

Keyword: Prurigo nodularis, Microneedle patch

**P533**

A case of eccrine hidrocystoma successfully treated with oral oxybutynin

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Eccrine hidrocystoma (EH) is benign proliferation of eccrine glands. They are commonly found in middle-aged to elderly women. EH may be solitary or multiple and are occasionally numerous. In case of single lesion, hidrocystomas may be removed by simple excision, electrodessication or CO2 laser. However, multiple EH is difficult to treat because of these methods could leave behind wounds. Multiple EHs treated with application of topical atropine or botulinum toxin A injection have been reported. Oxybutynin, well-known anticholinergics, is a high-affinity antagonist of M3 receptors localized in secretory glands. Therefore, it exerts an inhibitory effect on sweat glands, and often used in the treatment of hyperhidrosis. We report a case of multiple EH successfully controlled with oral oxybutynin. A 68-year-old female presented with numerous translucent papules with hyperhidrosis on both periorbital area for 10 years. The diagnosis of EH was made by histopathological examination. The patient started treatment with oral oxybutynin 5 mg once daily. After 4 week of therapy, a marked regression in lesions and symptom was noted. The patient is currently in a maintenance treatment. We suggest that the use of oral anticholinergics could be a potentially beneficial treatment option for hidrocystoma.

Keyword: Eccrine hidrocystoma, Oxybutynin

**P534**

Actinic cheilitis treated with topical ingenol mebutate gel (Picato®) 0.015%: A case report

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Actinic cheilitis is a common, premalignant lesion often affecting the lower lip that requires early and effective treatment. There are several treatment options including surgical excision, cryotherapy, carbon dioxide laser, and topical agents such as 5-fluorouracil or 5% imiquimod. A 79-year-old woman presented with a painful patch on her lower lip for 1 month duration. On physical examination, erythematous keratotic patches on the lower lip were shown. Histopathological findings revealed parakeratosis and atypical keratinocytes in the epidermis with marked solar elastosis in the dermis. The patient was diagnosed as actinic cheilitis. We applied topical ingenol mebutate gel (Picato®, Leo Pharma, Inc.) 0.015% for the three consecutive days. After treatment with ingenol mebutate gel (Picato®), the patient experienced painful erythematous scaly patches and erosion at day 1. Despite daily wet dressing, the local treatment site reaction persisted for two months. Ingenol mebutate gel (Picato®) has proven to be effective for the field treatment of actinic keratosis. Contrary to our case, in a report of four caucasian actinic cheilitis patients treated with ingenol mebutate gel (Picato®) 0.015%, three patients showed...