

Combination of 30% Salicylic Acid Peels and Mechanical Comedo Extraction for the Treatment of Favre-Racouchot Syndrome

Dear Editor,

Favre-Racouchot syndrome is a cutaneous disease characterized by cysts, comedones, and elastotic nodules in actinically damaged skin, typically on the face (1). It has been specifically connected to sun exposure and heavy smoking, which may act synergistically (2). Available medical and surgical therapies are of variable efficacy. We present a combined therapeutic approach: 30% salicylic acid peels followed by manual extraction of cystic and comedonal material in the same visit.

Five male patients, aged between 60-75 years with the clinical diagnosis of Favre-Racouchot syndrome, were treated with salicylic acid peel 30% followed by cyst and mechanical comedo extraction. Local anesthesia was considered unnecessary. Patients were subjected to the above therapies every two weeks for a series of four treatments. Photographs were taken before the beginning of treatment, as well as before and after each session (Figures 1a, b and 2a, b). At the end of the study, physician and patient global assessment scale was used to evaluate the efficacy of the treatment (0-25% indicated poor response, 25-50% fair, 50-75% good, and 75-100% excellent response).



Figure 1a, and 1b. Patients with Favre-Racouchot syndrome before treatment.

We have previously used this assessment scale in published research. Safety was assessed by evaluating early and delayed adverse events.

Physician assessment found a fair to good improvement in 80% of the patients based on the reduction of comedones and solar elastosis, as well as the improvement in overall skin appearance and texture. The numbers for each specific categories of improvement were as follows: 1 patient poor; 3 patients fair, and 1 patient good improvement. Based on the patients' self-assessment, all patients (100%) acknowledged an improvement. Three patients rated the improvement fair (60%) and two rated it good (40%). The treatment was well-tolerated and no side-effects were noted. No clinical progression was observed on 6-month follow-up visit.

Favre-Racouchot syndrome was originally described in 1932 by Favre and later reviewed in detail by Favre and Racouchot in 1951. Lesions are usually distributed on the temporal and periorbital areas. However, there have been reports of similar findings in atypical locations such as the forearms and chest. The underlying skin is sun-damaged, diffusely



Figure 2a, and 2b. Improvement of skin lesions (cysts, comedones and elastosis) after four sessions with salicylic acid peel 30% followed by cyst and comedone extraction.

thickened, and furrowed (1). The eruption is usually bilaterally symmetrical. The precise pathogenesis of Favre-Racouchot syndrome is not known. Nevertheless, it most commonly presents in patients with a history of long-term sun exposure, heavy smoking, and, although rare, a history of radiation exposure. Unilateral manifestation of the disease has been previously described and was attributed to prolonged occupational unilateral sun exposure or observed following radiation therapy (3). It is mostly reported in Caucasian men (with a prevalence of 6% in adults older than 50 years). Its incidence increases with age, although it has been reported in younger patients. Differential diagnosis includes dermatoses that present with lesions of similar morphologies, such as acne vulgaris, epidermoid cysts, sebaceous hyperplasia, and colloid milium (4). Diagnosis is primarily clinical. Although the histologic features of the disease are very characteristic, skin biopsy is rarely required. The comedones found are histologically indistinguishable from the primary comedones of acne vulgaris, with the exceptions of a lack of inflammation and the presence of a marked actinic elastosis in the surrounding dermis (epidermal atrophy and massive basophilic degeneration of the upper dermis). Measures to stop the progression of the disease include smoking cessation and sun protection. Treatment options include topical retinoids, excision, curettage, dermabrasion, comedo extraction, and carbon dioxide laser ablation. Daily oral isotretinoin (0.05-0.10 mg/kg/day) used in conjunction with topical tretinoin has also been found effective. Treatment results are usually unsatisfactory when these techniques are used independently, but when used in conjunction with one another they may provide a very favorable outcome (1). For the best therapeutic outcome, solar elastosis, the nodulocystic lesions, and the comedones that require mechanical removal should be targeted. Salicylic acid is a lipophilic beta-hydroxy acid possessing keratolytic, comedolytic, and anti-inflammatory properties. At concentrations between 20% and 30% it is used in the treatment of acne vulgaris and mild photodamage. It decreases sebum secretion and disrupts intercorneocyte cohesion, leading to desquamation (5). Its lipid solubility permits better penetration into the pilosebaceous unit. Salicylic acid extends up to the mid-portion of the follicular canal (upper dermis) where excessive keratinization, the initial event in comedo formation, takes place. Furthermore, it activates epidermal basal cells and underlying fibroblasts, resulting in reorganization of the epidermis and a rebuilding of the superficial dermal connective tissue. The above actions of salicylic acid may be responsible for the reduction in comedonal

lesions and the improvement in solar elastosis and overall skin texture. Additionally, its keratolytic effect facilitates comedo extraction.

On the basis of our results, we suggest an alternative therapeutic approach with salicylic acid peels followed by mechanical comedo extraction in patients suffering from Favre-Racouchot syndrome.

References:

1. Patterson WM, Fox MD, Schwartz RA. Favre-Racouchot disease. *Int J Dermatol.* 2004;43:167-9.
2. Sawicki J, Barankin B. Dermacase. Can you identify this condition? Favre-Racouchot syndrome. *Can Fam Physician.* 2010;56:247-8.
3. Mavilia L, Rossi R, Cannarozzo G, Massi D, Cappugi P, Campolmi P. Unilateral nodular elastosis with cysts and comedones (Favre-Racouchot syndrome): report of two cases treated with a new combined therapeutic approach. *Dermatology.* 2002;204:251.
4. Sonthalia S, Arora R, Chhabra N, Khopkar U. Favre-Racouchot syndrome. *Indian Dermatol Online J.* 2014;5(Suppl 2):S128-9.
5. Sgontzou T, Armyra K, Kouris A, Bokotas C, Kontochristopoulos G. Repeated salicylic acid peels for the treatment of hyperplastic sebaceous glands in hypohidrotic ectodermal dysplasia. *J Cosmet Laser Ther.* 2014;16:293-5.

Eftychia Platsidaki, Vasiliki Markantoni, Evgenia Balamoti, Anargyros Kouris, Dimitrios Rigopoulos, Georgios Kontochristopoulos

Department of Dermatology and Venereology, Andreas Sygros Skin Hospital, Athens, Greece

Corresponding author:

Eftychia Platsidaki, MD
5 Ionos Dragoumi Str
16121 Athens
Greece
platsidakieft@yahoo.com

Received: June 21, 2018

Accepted: February 11, 2019