Auditory System Involvement in Psoriasis

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Background: Psoriasis is a systemic inflammatory disorder associated with many chronic and progressive diseases. The external ear is commonly involved in psoriasis, showing typical lesions at the auricle and the auditory canal. Despite the high prevalence of clinical manifestations, the potential impact of psoriasis on the function of the auditory system has been little studied.

Objective: In this study we aimed to assess the possible presence of hearing loss in a population of psoriatic patients. In addition, a qualitative and quantitative evaluation of clinical manifestations and functional impairment of the external auditory canal and/or tympanic membrane was performed, via examination and instrumental measurements.

Materials and methods: Dermatological examination of the external auditory canal (EAC) was performed, and its status was assessed using an arbitrary four-level clinical scoring system, based on presence of desquamation, earwax and stenosis. The auditory system assessment included speech and pure tone audiometry, impedance audiometry. A combined interpretation of those tests allowed us to define the origin of the hearing impairment (sensorineural, conductive or mixed). Correlation of clinical/instrumental otological parameters with clinical parameters of psoriasis was also considered.

Results: Hearing loss and alterations of tympanogram are more frequent among psoriatic patients. Patients with psoriatic arthropathy suffer from hearing loss more often than non-arthropatic ones. Hearing loss is more frequent when psoriasis lasts for more than 10 years and among smokers. Finally, psoriasis is generally more severe in patients with hearing loss.

Conclusions: These data confirm and reinforce the idea of psoriasis as a multisystemic disease, and further expand the scope of clinical research in this field by showing that ear involvement is frequent in psoriatic patients, and does not concern only the external ear.
Further studies are needed, aimed at better defining the underlying pathogenic mechanisms and updating diagnostic, and perhaps therapeutic, protocols accordingly.