

*Letter to the Editor-Editöre mektup*

## **Meniere's disease triggered by alopecia areata**

*Alopesi areata tarafından tetiklenen Meniere hastalığı*

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Dear Editor,

A 38-year-old female presented to the Otorhinolaryngology Clinic of Cumhuriyet University Hospital with recurrent fluctuating sensorineural hearing loss, aural pressure, episodic vertigo and tinnitus with duration of 4 years. Personal history revealed that an attack of Meniere's disease occurred 3-4 weeks later from an alopecia lesion emerged. She told that it was fourth sequential episodes of two diseases that she was experiencing within the last four years. Ear, nose and throat examination was normal. Pure tone audiometry showed sensorineural low frequency hearing loss (LFHL). The level of hearing loss was assessed by four frequency pure-tone averages (PTA) ranging from 500 to 3000 Hz. Speech discrimination scores were normal left ear, but right ear that was decreased (% 80). The clinical findings were consistent with the diagnosis of Meniere's disease. In dermatologic examination there was an alopecia areata lesion in 3 cm diameter on the parietal region of the head (Figure 1). This patient's alopecia areata lesion was seen the last five years. Ig E levels of the subjects were normal, and there was no personal and family history of atopic or allergic diseases.

Systemic examination revealed no abnormal findings. Routine hematological and biochemical parameters, including also sedimentation rate, CRP, and RF were within normal limits. The levels of ANA, anti-dsDNA was negative, and anti-microsomal antibodies and anti-thyroid antibodies were within normal limits.

Meniere's disease diagnosis is essentially clinical in nature. It is characterized by recurrent and spontaneous vertigo spells, fluctuating sensorineural hearing loss, and tinnitus and ear fullness [1]. Autoimmune inner ear disease was first described as sensorineural hearing loss (SNHL) in 1979. The clinical presentation of SNHL can be quite variable, often overlapping with other disorders such as Meniere's disease [2, 3]. Hughes et al [4] reported that over 52% of patients diagnosed with autoimmune inner ear disease presented with hearing loss and true vertigo. The etiopathogenesis of the Meniere's disease is still unknown. Active and inactive chronic otitis media, subsequent

to infections, inflammation, trauma, otosclerosis, syphilis, allergy, leukemia and autoimmune disease may be causing this pathology [3]. Some papers in the literature shows in about one-third of all cases the Meniere's disease seems to be of autoimmune origin, although the immunological mechanisms involved are not yet clear [4, 5]. Autoimmune origin of Menier's disease is not known clearly, but circulating immune complexes have also been thought to have a role in the pathogenesis of this disease. An increased level of circulating immune complexes has been found in %32-%50 patients with Meniere's disease, which is higher than that found in normal patients [3].



**Figure 1. An alopecia areata lesion on the parietal region of the head.**

Alopecia areata is a common dermatologic disorder that seen for 2% of patients to dermatology clinics. The etiology of alopecia areata is still unknown, but most evidences show the role of genetic constitution, the atopic state, non-specific immune and organ specific autoimmune reactions and possibly emotional stress [6]. Alopecia areata has also been associated with various autoimmune disorders such as autoimmune thyroiditis and vitiligo. Although alopecia areata is non-life threatening, its precipitous onset and recurrent episodes disrupts many lives of all ages [7, 8].

Many immunological processes may play a role in the etiology of these diseases. But the common pathogenesis of both diseases has not been previously described in the literature. It is known that one autoimmune disease may be associated with another. Addition to the fact that both diseases have an autoimmune pathogenesis, that Meniere's disease might be triggered by the attacks of alopecia areata such as in our case is an interesting phenomenon. Although these two diseases may be seen together coincidental in our patient, it is important that both diseases have an autoimmune pathogenesis. To our knowledge, this is the first reported case of Meniere's disease that associated with alopecia areata.

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