AUDITORY DISORDERS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND ITS RELATION TO CLINICAL PARAMETERS

Abstract:
Summary: Systemic lupus erythematosus (SLE), affects multiple body organs and systems, it may also involve the inner ear, and this is defined as a secondary autoimmune inner ear disease (AIED) **(Ruckenstein, 2004).**

Twenty female SLE patients, diagnosed according to the revised ACR criteria, and 20 age and sex matched healthy controls were enrolled in the study.

The patients were selected from the outpatient clinic and inpatient section of Rheumatology and Rehabilitation department, Faculty of Medicine, Cairo University Kasr el Ainy Hospital.

All patients were subjected to full history taking, general and local examination, assessment of disease activity, laboratory investigations and auditory evaluation (pure tone audiometry, acoustic immittance testing and speech audiometry).

Only five (25 %) of the 20 patients reported to have audiovestibular symptoms including tinnitus in four (20 %) and vertigo in one (5%) patient. Fifteen (75 %) patients had no audiovestibular symptoms.

Pure tone audiometry revealed hearing loss in thirteen (65%) of SLE patients, this shows difference between subjective and objective assessment of hearing loss as all the cases of hearing loss were asymptomatic as regard hearing impairment.

Only one (5%) of SLE patients complained of vertigo. The patient was one of two patients proved by audiometry to have mild low tone loss, which could be attributed to the presence of hydrops.

In the thirteen patients (65%) tested by audiometry and had abnormal pure-tone thresholds, 2 (10%) patients had bilateral symmetrical hearing loss, 8 (40%) patients had bilateral asymmetrical hearing loss, 3 (15%) patients had unilateral hearing loss. Two (15.3%) patients had low tone loss and 11(84.6%) patients had high tone loss. Most of the patients are typical of autoimmune hearing loss as it is often regarded as bilateral, but asymmetrical.

Of the twenty patients with SLE in this study 10 patients (50%), were treated with Corticosteroids and 10 patients (50%) with corticosteroids Hydroxychloroquine and Azathioprine. There was no significant statistical association between type of medication and audiological findings in SLE patients.

In the present study there was no significant statistical association between disease duration and hearing loss yet it showed significant statistical association between age of onset of the disease and hearing loss in SLE patients.

In the Kasr el Aini study there was no association between sensorineural hearing loss, clinical variables, laboratory parameters or disease severity.

Conclusion: Only five (25 %) of the 20 SLE patients reported to have audiovestibular symptoms, yet pure tone audiometry revealed hearing loss in thirteen (65%) of SLE patients.

Absence of audiovestibular symptoms does not exclude inner ear affection in SLE.

Most of the patients are typical of autoimmune hearing loss as it is often regarded as bilateral, but asymmetrical.

There was no association between sensorineural hearing loss, disease duration, clinical variables, laboratory parameters or disease severity

The study showed significant statistical association between age of onset of the disease and hearing loss in SLE patients.

Recommendations: Auditory affection is frequent in SLE patients, it may be asymptomatic, so SLE patients should have regular auditory assessment using pure tone audiometry.

This is more emphasized in patients with age of onset of the disease after 28 years, as the study showed significant statistical association between age of onset of the disease and hearing loss in SLE patients.