SUMMARY

Objective evaluation of facial nerve paralysis represents a unique challenge to the clinician . Electromyography and the acoustic reflex tests have been widely used as neurophysiological tests in an assessment of facial nerve function.

The role of electrophysiological tests in the assessment of potential recovery and detection of prognosis compared to the clinical findings is still doubtful.

This study aims to achieve an early prognostic pattern for facial nerve lesions as well as following the potential recovery of the nerve. This was depending upon electrophysiological tests in comparison to clinical assessment. This may be helpful in decision making of treatment.

Facial nerve has special characters in its anatomy and its variations must be studied seriously as well as its surgical landmarks . Microanatomy and Neuropathophysiology are important items for classification of injury and they were discussed in details.

Most important causes of facial lesions in this study were Bell's palsy, trauma (especially surgical), otitis media and viral infection.

Clinical approach to any case of facial palsy should include important symptoms as otalgia, hyperacusis, epiphora ear discharge and taste affection, while clinical examination should include accurate grading of the motor power .

Testing facial nerve function includes topognostic tests as lacrimation function, salivary flow, taste, acoustic reflex and electrophysiological tests such as nerve excitability test, maximal stimulation test, electroneurography, electromyography, and nerve latency test .

The study was conducted on 30 patients of both sexes and different etiologies .

For each patient this evaluation was done:

detailed history, general examination, complete ENT examination, facial nerve clinical evaluation, radiological examination, pure tone audiometry, acoustic reflex and electroneurography.

Patients were followed up every 2weeks for three months. The expected prognosis was compared with the final evaluation of the patient. Resulting data was evaluated statistically.

In statistical analysis we used arithmetic mean, standard deviation, student's T test, paired t- test- and z test or f ratio for proportion

Cases were classified according to their results into 3 group, group A with good recovery group B with intermediate recovery and group C with poor recovery. Etiology was highly significant as most of cases on group A were idiopathic and most of cases in group C were traumatic.

Motor score was increasing with high significance in group A, increasing significantly in group B and insignificantly in group C Acoustic reflex was intact in most of cases in group A.

In electroneurography (ENoG) threshold was decreasing and maximal amplitude was increasing significantly in group A and amplitude was increasing with intensity along sessions .

These results agreed with many authors who assured the use of acoustic reflex test and ENoG in parallel with motor score in both prognosis and potential recovery assessment.