Abstract

**Background and aim of the study**
The aim of this article is to present the functional gain of the specific rehabilitation program in patients with facial nerve paralysis, irrespective of etiology, following a complex physiotherapeutic treatment, consisting of the combined application of ionophoresis and LASER.

**Material and Method**
We performed a retrospective analysis of 26 patients having their consent and The Teaching Emergency Hospital “Bagdasar Arseni” (TEHBA) ethics Committee’s approval, N.O. 683/21.02.2019. The patients were admitted to the Neuro-Muscular Rehabilitation Clinic Division of TEHBA between April 2011 and March 2019. The patients were over the age of 18, diagnosed with facial nerve palsy and received physiotherapy consisting of the combined application of: ionophoresis with 1% potassium iodide, applied to positive electrode, preauricular, and the negative electrode, retroauricular, for 20 minutes and LASER, to the temporomandibular joint on the affected part, 4 points: radiant exposure per dose 3 J/cm², frequency 5 Hz, probe area 1 cm², power 62 mW, for 10 sessions and two sets of the same formula at the temporomandibular joint on the opposite side.

**Results**
From the etiological point of view, the study included an equal number of patients with peripheral facial palsy (PFP) and with central facial palsy (CFP), respectively 13 in each group. Overall, at least 1 patient in 2 had a positive response to physiotherapy. In the patients with PFP, 77% of patients responded to the treatment and 46% had complete remission. In the patients with CFP, only 30% responded to treatment and only one had complete remission. Approximately half of the patients did not have any adverse reactions (46%), while the rest showed temporary erythema (46%), or local tingling sensation over a variable period of time (8%).

**Conclusion**
Applying the combination of ionophoresis and LASER as physiotherapeutic treatment is particularly effective in peripheral facial nerve paresis. The method is safe and well tolerated, therefore we propose its use in this type of pathology.