

BILATERAL HYPOGLOSSAL PALSY 7 YEARS AFTER IRRADIATION FOR NASOPHARYNGEAL CARCINOMA. CASE REPORT

A. Salmaggi, L. Stanzani, G. Rossi*, A. Rigamonti, V. Mantero.
ASST Lecco, Alessandro Manzoni Hospital, Neuroscience and °Pathology Dpt., Lecco, Italy

Case Report

A 63-yr-old lady was admitted to the EU of Lecco hospital with a clinical history of neck pain in the last 2 months and difficulty in swallowing and chewing and in speech in the last few days.

Neurological examination disclosed bilateral deficit in tongue protrusion, more on the left side, with slight hemiatrophy of the left side of the tongue.

Her remote history included – 6 years before – biopsy of a neck lymphnode on the left (histological diagnosis of undifferentiated carcinoma) in the context of a left rhinopharyngeal mass subsequently operated and diagnosed as lymphoepithelial rhinopharyngeal carcinoma, EBV-negative. The patients was treated with radiochemotherapy (2 cycles of cis-platin and a total dose of 70 Gy in 33 fractions delivered by IMRT

The patient underwent neck and brain MRI with and without gadolinium, both of which excluded locoregional tumor relapse/intracranial diffusion and cerebrospinal fluid examination, which ruled out meningeal carcinomatosis. CSF showed 7 lymphocytes/mm³, normal glucose and protein levels, negative search for viral genome of HSV, VZV, EBV and CMV by PCR.

Total-body FDG-PET was negative



Fig.1
The patients after 9 months

Electromyography showed severe denervation of tongue muscles suggesting bilateral lesion of the hypoglossal nerve. The remaining cranial-cervical muscles/nerves were spared (V, VII, X and XI). No conduction blocks or dysfunction of the neuromuscular junction were detected.

Echocolor Doppler of both carotid and vertebral arteries was normal
Marked difficulties in swallowing compelled the treating physicians to perform PEG in an effort to provide adequate feeding

Follow-up at 9 months (see Fig.1) showed evolution to bilateral tongue atrophy with a slight improvement in speech and in swallowing but still need to be fed via PEG.

A putative diagnosis of post-radiation bilateral hypoglossal palsy was done.

Nasopharyngeal carcinoma is rather rare in Western Europe; the occurrence of late involvement of lower cranial nerves after radiotherapy for this tumor occurs in about 5% of treated patients, with the hypoglossal nerve being most often affected, followed by cranial nerves X with recurrent laryngeal palsy. Clinical outcome is poor, with little recovery of function.

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