COLLET-SICARD SYNDROME DUE TO METASTATIC SIGMOID CANCER: A CASE REPORT.

¹G. Bruno, ¹G. Capaldo, ¹F. Tuccillo, ²T. Troiani, ³L. Ugga, ³A. D'Amico, ¹G. Di Iorio

¹Second Division of Neurology, University of Campania "Luigi Vanvitelli", Naples, Italy ²Department of Experimental and Clinical Medicine, University of Campania "Luigi Vanvitelli", Naples, Italy ³Department of Advanced Biomedical Sciences, University of Naples "Federico II", Naples, Italy

Introduction

Collet-Sicard syndrome (CSS) is caused by lesions at the base of the skull affecting the lower cranial nerves. It is associated with various etiologies of tumoral and other origin. We report an unusual case of a CSS caused by bone metastasis secondary to sigmoid carcinoma.



Materials and Methods

This patient came to our attention for the first time at the age of 66, for the acute onset of dysphagia, hypophonia and nuchal pain extending to the right scapula. Our patient had a history of sigmoid carcinoma with liver metastasis diagnosed two years prior, and was currently being treated with capecitabine and

bevacizumab.

The patient was admitted to our Department for a full clinical and instrumental assessment, including Brain MRI, bone scintigraphy.

Fig.1 Neurological examination showing (a) right deviation of the protruded tongue, atrophy of the tongue at right side and **(b)** right sternocleidomastoid and trapezius hypotrophy.

Results

At the time of our observation, his neurological examination was characterized by severe hypophonia, dysphagia, right deviation of the protruded tongue, atrophy of the tongue at right side with fasciculations, hypomobility of uvula to the right and ipsilateral sternocleidomastoid and trapezius hypotrophy. Brain MRI showed an inhomogeneous lesion at the right occipital foramen, hypointense in T1W and hyperintese in T2W with contrast enhancement, suggestive of metastatic lesion with infiltration of the right jugular foramen and the hypoglossal canal. Bone scintigraphy showed increased uptake of the tracer at the base of the skull.



Discussion

Bone metastases are most commonly caused by prostate and breast neoplasms, followed by thyroid, bladder, lung, kidney neoplasms and melanoma; conversely, they are rare in sigmoid cancer, and even more rare is their localization at the base skull. The occurrence of CSS caused by sigmoid colon adenocarcinoma is particularly notable, since such a condition has never been previously described in literature.

Fig. 2 Brain MRI with contrast showing bone metastasis (a) T1 wheighted axial and coronal: Bone lesion with epicenter at the level of the jugular foramen (white arrow) extended to the hypoglossal canal **(b)** DWI and ADC: The lesion shows diffusion restriction.

Conclusions

In patients showing involvement of the lower cranial nerves and with previous diagnosis of cancer, differential diagnosis includes carcinomatous meningitis or a localized anomaly able to affect multiple nerves. The first diagnostic approach should be to assess the anatomy of the impaired nerves in order to determine where a single lesion should be localized. We suggest a non-invasive approach by an accurate neuroimaging study of the area; MRI should be used in most cases of jugular foramen syndromes.

References:

1. Barbiero FJ¹, Baehring JM², Fulbright RK², Becker KP² *MRI findings in Collet-Sicard syndrome*, Neurology 2017 Feb 21

2. Villatoro R¹, Romero C, Rueda A, Collet-Sicard syndrome as an initial presentation of prostate cancer: a case report. J Med Case Rep. 2011

