Bilateral Carotid Body Paraganglioma

Paraganglioma Bilateral do Corpo Carotídeo

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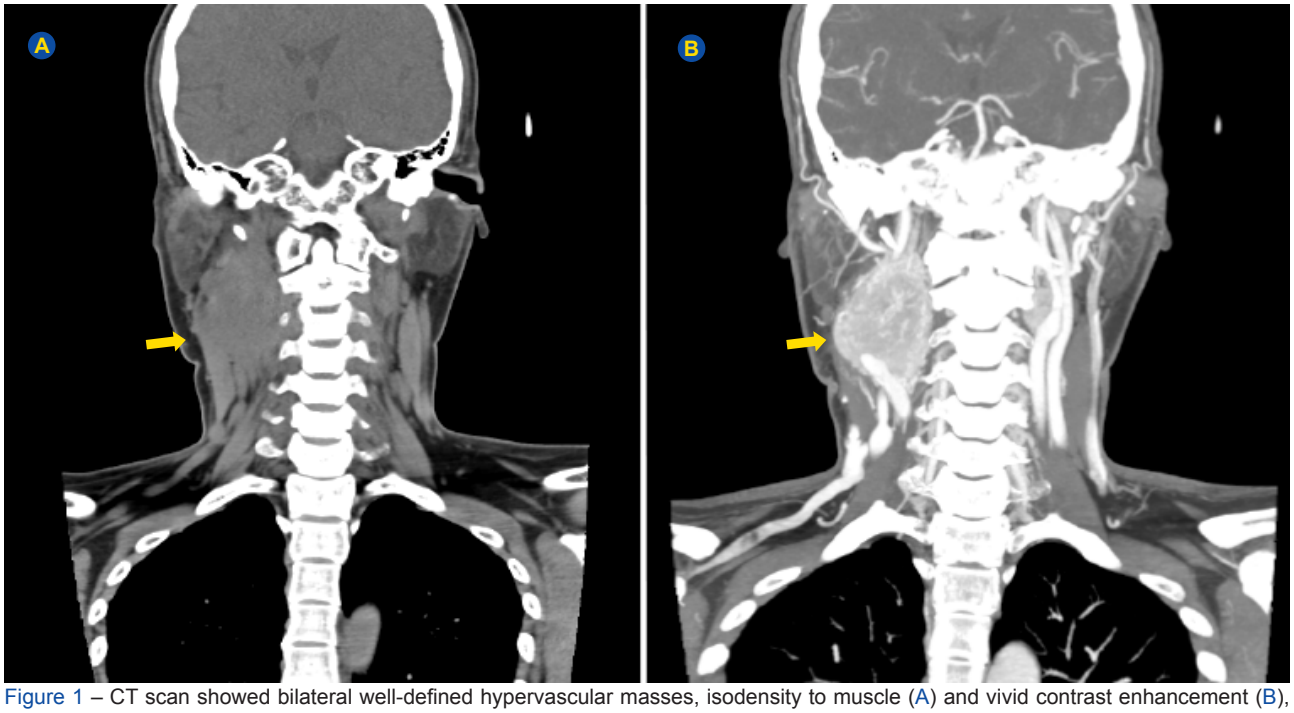

Figure 1 – CT scan showed bilateral well-defined hypervascular masses, isodensity to muscle (A) and vivid contrast enhancement (B), at right and left carotid bifurcations (Arrow)

A 28-year-old woman presented with a 2-year history of a slow-growing, non-tender and pulsatile mass in the right carotid bifurcation. The computed tomography study (Fig. 1) revealed the hypervascular characteristics of paraganglioma (PGL): a well-circumscribed expansile mass with intense contrast enhancement. Additionally, a small left carotid mass was also identified. Hormonal evaluation revealed high levels of plasma catecholamine metabolites. A successful staged excision of both tumors was performed. The PGL gene panel testing was positive for a *SDHD* gene mutation, c.3G > C.

Carotid body PGL is mostly a sporadic, non-functioning and benign tumour. Imaging studies are important for the diagnosis due to its contraindication for biopsy.[1] Bilateral/multiple lesions, younger age, presence of family history or syndromic features, and malignant tumor can raise the possibility of a hereditary disease.[2,3] Mutations in genes encoding mitochondrial enzyme, succinate dehydrogenase (SDH)-subunit B and D, are common among head and neck PGL.[3] The modality of treatment depends on whether the tumor is functioning or has a mass effect.

PROTECTION OF HUMANS AND ANIMALS: The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association published in 2013. | **DATA CONFIDENTIALITY:** The authors declare having followed the protocols in use at their working center regarding patients' data publication. | **INFORMED CONSENT:** Obtained. | **CONFLICTS OF INTEREST:** All authors report no conflict of interest. | **FUNDING SOURCES:** The authors declare that there were no external sources of study for the performance of this article.

REFERENCES

1. Moore MG, Netterville JL, Mendenhall WM, Isaacson B, Nussenbaum B. Head and neck paragangliomas: an update on evaluation and management. Otolaryngol Head Neck Surg. 2016;154:597-605.
2. Dahia PL. Pheochromocytoma and paraganglioma pathogenesis: learning from genetic heterogeneity. Nat Rev Cancer. 2014;14:108-19.
3. Williams MD. Paragangliomas of the head and neck: an overview from diagnosis to genetics. Head Neck Pathol. 2017;11:278-87.

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