Letter to the Editor: Can Vagus Nerve Schwannoma Masquerade as a Carotid Chemodectoma?

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Received: 29 March 2017 / Accepted: 1 April 2017 / Published online: 8 April 2017
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We read with great interest the article entitled “Hemiatrophy of the Tongue Caused by an Extensive Vagus Nerve Schwannoma Masquerading as a Carotid Chemodectoma” by Rallis et al. [1]. While we found the case and discussion interesting, we believed its presentation raised a few questions and required clarifications.

First, in our experience, the hypervascular character of paragangliomas [2] is a non-equivocal feature that allows a reliable differentiation from schwannomas. The authors report a hypervascular character of their lesion, but do not precise what exam was used to assess that feature. The contrast enhancement alone is not sufficient and hypervascularization should be documented by a specific exam, such as angio-CT, angio-MR, angiography or perfusion sequence. Moreover, the illustration provided does not show intense nor homogeneous enhancement.

Second, the authors emphasize on the importance of splayed internal and external carotids, which is a key feature to diagnose carotid paraganglioma. While this argument is important, the images provided do not seem to corroborate this assumption. Indeed, on the axial CT slice, internal and external carotid arteries do not seem splayed but rather displaced together medially by the tumor, although we could better judge on the totality of the exam. Carotid paragangliomas, on the opposite, are usually clearly centered on the bifurcation and splay the carotid branches diametrically opposite [2]. As stated by the

authors, vagal nerve schwannomas do not separate ICA and ECA, but are rather responsible of a splaying between carotid arteries and jugular vein, as it seems to be the case on the axial image displayed and in the per-operative observation.

‘This paper raises an interesting discussion as lesions of the vascular space are rare and may raise diagnostic difficulties. In schwannomas of the vascular space, it is especially difficult to diagnose the nerve from which the tumor arises, and the vessels displacement is a diagnostic tool for determining which nerve root is the source of a schwannoma. In our opinion, the main differential diagnosis here would not be paraganglioma, but rather hypoglossal or glossopharyngeal schwannomas, which can displace the vessels in a similar way [3] but seem even rarer considering the sparse literature on this subject.

To conclude, unless the authors demonstrate a hypervascular pattern and splaying between internal and external carotid arteries, we do not think a vagal nerve schwannoma can masquerade as a carotid chemodectoma, and the differential diagnosis should be made both on vascularization and anatomic features.

Compliance with Ethical Standards

Conflict of interest Benzakoun Joseph, Cholet Clement, Trunet Stephanie, Pyatigorskaya Nadya, Dormont Didier, Leclercq Delphine and Law-Ye Bruno declare they have no conflicts of interest.

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