JOURNAL OF THE BELGIAN SOCIETY OF RADIOLOGY

Meet the Aunt Minnies That Reside in the Skull Base

SHORT ABSTRACT

STEPHANIE VANDEN BOSSCHE

ubiquity press

A wide variety of benign and malignant tumours and pseudotumours can occur at the skull base.

One category includes frequent and well-known pathologies that can be found anywhere in the body in or around bones but just happen to occur at this level. These include fibrous dysplasia (Figure 1) and metastatic disease. Their diagnosis is generally straightforward, yet these lesions require particular attention and meticulous evaluation to establish their relationship with the numerous channels and foramina of the skull base.

A second category of lesions includes abnormalities that are commonly encountered at the skull base on routine brain magnetic resonance imaging (MRI) and computed tomography (CT) scans as incidental findings, a typical example being arrested pneumatization of the sphenoid (Figure 2). This group encompasses variants and congenital lesions that are benign and should clearly be denoted as such in the radiology report, to avoid unnecessary follow-up and treatment.

Finally, there are the rare but characteristic skull base tumours, such as the olfactory neuroblastoma (Figure 3), which can often be correctly diagnosed by combining their clinical presentation, imaging features, and localization.

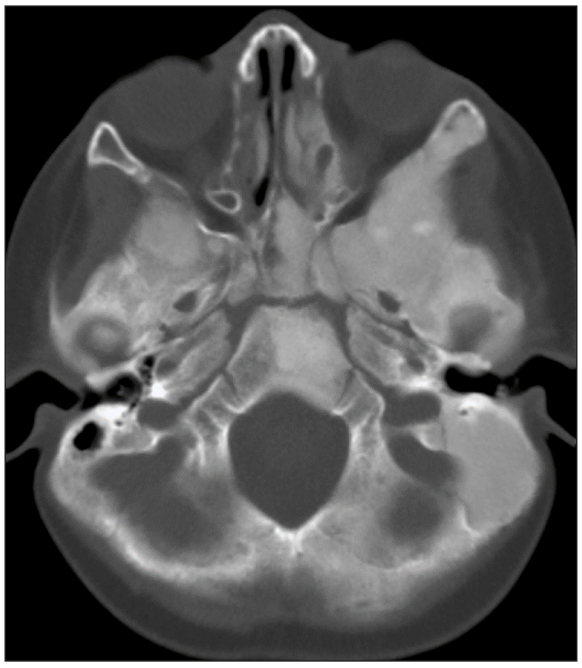

Figure 1 Fibrous dysplasia in McCune-Albright syndrome. On this axial CT image in bone window settings, extensive ground glass appearance and osseous expansion is seen, typical of fibrous dysplasia.

CORRESPONDING AUTHOR:
Stephanie Vanden Bossche
University Hospital Antwerp, BE
AZ Sint-Jan Bruges, BE
steph.vandenbossche@gmail.com

KEYWORDS:
skull base; pseudotumor; olfactory neuroblastoma; mri; arrested pneumatization

TO CITE THIS ARTICLE:
Vanden Bossche S. Meet the Aunt Minnies That Reside in the Skull Base. *Journal of the Belgian Society of Radiology*. 2022; 106(1): 120, 1–2. DOI: https://doi.org/10.5334/jbsr.2969

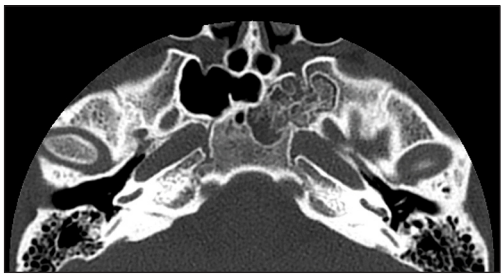

Figure 2 Arrested pneumatization of the sphenoid. This frequently encountered congenital variant of the skull base is demonstrated on this axial CT image in bone window settings. It should be recognized as a benign entity without clinical significance that does not require further follow-up.

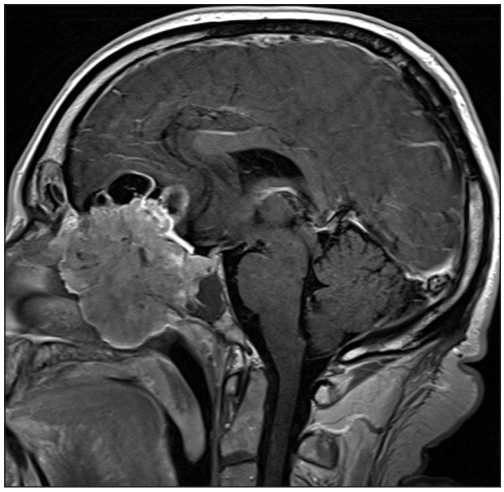

Figure 3 Olfactory neuroblastoma. This malignant neuroectodermal tumour arises from the olfactory epithelium in the superior nasal cavity and often extends intracranially across the lamina cribrosa, as is depicted on this sagittal post-contrast T1-weighted MR image.

During the presentation, representative pathologies from these three categories are demonstrated, along with some tips to facilitate the diagnostic process and to improve the radiology report.

CURRICULUM SUMMARY

Stephanie Vanden Bossche

A radiologist with a special interest in neuroradiology and head and neck imaging, Stephanie graduated from Ghent University in 2016, is active as a consultant in AZ Sint-Jan Bruges since 2016 and has been a staff member in Antwerp University Hospital since 2019. She is co-author of three chapters in the ESNR Textbook (on skull base tumours and related disorders, temporal bone pathology, and upper neck spaces anatomy and pathology) in collaboration with Prof. Dr. J. Casselman and Dr. B. De Foer.

COMPETING INTERESTS

The author has no competing interests to declare.

AUTHOR AFFILIATIONS

Stephanie Vanden Bossche orcid.org/0000-0002-4931-1702
University Hospital Antwerp, BE;
AZ Sint-Jan Bruges, BE

TO CITE THIS ARTICLE:
Vanden Bossche S. Meet the Aunt Minnies That Reside in the Skull Base. *Journal of the Belgian Society of Radiology*. 2022; 106(1): 120, 1–2. DOI: https://doi.org/10.5334/jbsr.2969

Submitted: 04 October 2022 **Accepted:** 04 October 2022 **Published:** 18 November 2022