

Sphenoidal xanthoma: A case report

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Abstract

Aim: We present a very rare case of sphenoidal xanthoma. Our aim is to detail the clinical presentation, histopathological and radiological findings, and the treatment approach for this patient.

Case report: A 9-year-old patient with medical history of seizures and family history of Laron syndrome, was referred to our department for a sphenoid tumor discovered through computed tomography (CT) following a cranial trauma. The patient had experienced multiple episodes of intense headache, but no diplopia was reported. Physical examination, including nasal endoscopy and ophthalmological assessment, was normal. CT revealed a benign-appearing osteolytic lesion with trabeculations and cystic-matrix of the sphenoid body.

Magnetic resonance imaging showed a bone lesion measuring 17 mm with hyperintensity on T1-weighted imaging and hyperintensity on T2-weighted imaging, surrounded by T2-hypointense peripheral band. There was no enhancement or diffusion restriction. The patient underwent endoscopic sinus surgery, during which a yellow-tan, friable soft tissue was identified and biopsied in the sphenoid sinus. Histopathological examination described a sample consisting of fragments of vital trabecular bone tissue, with medullary spaces occupied by foamy histiocytes. The immunohistochemical study was negative in histiocytic cells for CD1a and PS100. In conclusion, the histopathologic findings within the clinical and imaging context were consistent with intraosseous xanthoma. The follow up was simple.

Conclusion: Xanthomas are rare, benign lesions with a low occurrence in the maxillofacial region. Typically asymptomatic, often found incidentally. The diagnosis requires careful assessment of the clinical, radiographic, and histopathological findings.

Aim

Our aim is to detail the clinical presentation, histopathological and radiological findings, and the treatment approach of a sphenoidal xanthoma.

Methods

We studied the case of a 9-year-old male patient who presented with a sphenoidal xanthoma.

Case report

A 9-year-old patient

Family history : Laron syndrome

Medical history : seizures

Was referred for sphenoid tumor discovered through computed tomography (CT) following a cranial trauma.

Symptoms : Multiple episodes of intense headache, but no diplopia was reported.

Physical examination, including nasal endoscopy and ophthalmological assessment, was normal.

CT : benign-appearing osteolytic lesion with trabeculations and cystic-matrix of the sphenoid body.(figure1)



Figure 1 :Axial and sagittal sections of CT showing an osteolytic lesion of the left sphenoid body

MRI: bone lesion measuring 17 mm with hyperintensity on T1-weighted imaging and hyperintensity on T2-weighted imaging, surrounded by T2-hypointense peripheral band. There was no enhancement or diffusion restriction.

The patient underwent endoscopic sinus surgery, during which a yellow-tan, friable soft tissue was identified and biopsied. Histopathological examination described a sample consisting of fragments of vital trabecular bone tissue, with medullary spaces occupied by foamy histiocytes. The immunohistochemical study was negative in histiocytic cells for CD1a and PS100.(figure2)



Figure 2 : Microphotographs of histopathological and immunohistochemical specimens. a) Hematoxylin-eosin stain (100x): Histiocytic cells and foamy macrophages with granular cytoplasm, which are arranged over a sparse stroma with large fibroblasts and fusiform fibroblasts with a reactive appearance. b) IHQ-CD1a negative

In conclusion, the histopathologic findings within the clinical and imaging context were consistent with intraosseous xanthoma . The follow up was simple.

Patient was referred to pediatric department

Conclusion

Xanthomas are rare, benign lesions with a low occurrence in the maxillofacial region [1]. Typically asymptomatic, often found incidentally [2]. The diagnosis requires careful assessment of the clinical, radiographic, and histopathological findings [3].

References

[1] Zehani A, Houcine Y, Chelly I, Jemel H, Haouet S. Xanthogranuloma of the sellar region. Tunis Med. 2016 Nov;94(11):700. PMID: 28994877. [2] Tartuci IT, Junior NADS, Rogerio F, Dal Fabbro M, Garmes HM, Reis F. Intrasellar xanthogranuloma mimicking macroadenoma. Neuroradiol J. 2024 Feb;37(1):123-125. doi: 10.1177/19714009231166075. Epub 2023 Mar 23. PMID: 36951613; PMCID: PMC10863574. [3] Liu ZH, Tzaan WC, Wu YY, Chen HC. Sellar xanthogranuloma manifesting as obstructive hydrocephalus. J Clin Neurosci. 2008 Aug;15(8):929-33. doi: 10.1016/j.jocn.2007.05.028. Epub 2008 May 19. PMID: 18487047.