

CAPILLARY HEMANGIOMA OF THE SPHENOID SINUS

HEMANGIOMA CAPILAR DO SEIO ESFENOIDAL

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ABSTRACT

Hemangiomas of upper respiratory tract are uncommonly seen in clinical practice, and there are only a few reports of cases arising in the nasal sinuses. Specifically concerning capillary hemangiomas of the sphenoid sinus, as far as we know, there is only one case reported in the literature. This case report describes also a capillary hemangioma of the sphenoid sinus. A 26 year- old man complained of an intense headache and a retronasal bloody drainage. After some days in conservative treatment without any improvement, and after having an imaging study showing partial opacification of the sphenoid sinus, he underwent a left sphenoidectomy. The lesion identified in the region was resected and sent to histopathological analysis, which revealed a capillary hemangioma. The patient is on follow-up for 12 months now and still asymptomatic. This case report emphasizes the importance of also considering this diagnosis when evaluating paranasal sinuses related complaints, even when faced with a clinical history and ancillary exams indicative of a common inflammatory disease. Despite the good result seen with the surgical management of this patient, this alternative should be carefully chosen, taking into account possible hemorrhagic complications of different hemangiomas.

Keywords: Headache, hemangioma, sinusitis

RESUMO

Hemangiomas da via aérea superior são vistos raramente na prática clínica e há apenas alguns relatos de casos nos seios paranasais. Falando especificamente do hemangioma capilar do seio esfenoideal, pela nossa busca na literatura, há apenas um relato. Descrevemos aqui mais um caso de hemangioma capilar do seio esfenoideal. Paciente de 26 anos com cefaléia intensa e drenagem pós-nasal que, após alguns dias de tratamento conservador sem melhora, e tendo feito exames de imagem mostrando opacificação parcial do seio esfenoideal, foi submetido a esfenoidectomia esquerda. A lesão identificada na região foi ressecada e enviada para análise histopatológica. A mesma revelou um hemangioma capilar. O paciente, com seguimento de 12 meses, permanece assintomático. Esse relato enfatiza a importância de considerar esse diagnóstico quando avaliadas queixas relacionadas aos seios paranasais, mesmo quando a história e exames indiquem uma patologia inflamatória comum. Apesar do bom resultado cirúrgico desse paciente, essa alternativa terapêutica deve ser considerada com cuidado, levando em conta as possíveis complicações hemorrágicas dos diferentes hemangiomas.

Palavras-chave: Hemangioma; cefaléia; sinusite

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Hemangiomas of upper respiratory tract are uncommon and there are only reports of cases in the nasal sinuses (1-5). Specifically, when concerning capillary hemangioma of the sphenoid sinus, as far we know, there is only one case reported in the literature (4). This paper also describes a case of capillary hemangioma of the sphenoid sinus and discuss its management.

CASE REPORT

A twenty-six-year old man presented with an intense headache which began after landing from a flight and developed a retronasal bloody drainage. Because of the persistence of these symptoms, he sought help at the emergency ward where, after undergoing computed tomography (CT) studies and nasal endoscopy, he was diagnosed with sphenoidal sinusitis (Figure 1).

He was managed with an antibiotic, amoxicillin. As he was not experiencing any symptom improvement, another doctor (O.B.P.) was consulted. This time, the patient received systemic corticosteroids and was warranted a magnetic resonance angiography to investigate the hypothesis of barotrauma hemossinus. This exam excluded the presence of vascular malformations in the base of the skull. The patient experienced a slight improvement but, soon afterwards, the symptoms relapsed. He eventually underwent a left sphenoidectomy, when an edematous lesion at the region of the carotid artery and clivus was identified (Figure 2).

The lesion was resected and sent to histopathological analysis, which revealed a capillary hemangioma. The patient is on follow-up for 12 months now and still asymptomatic. The control imaging shows a small thickening in the surgical site, without any other relevant abnormality.

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Figure 1 - Computed tomography showing partial opacification of the sphenoid sinus.



Figure 2 - Sphenoidal lesion appearance.

DISCUSSION

Hemangiomas can develop in any part of the superior aerodigestive tract mucosa, being the nasal and oral cavities the most common sites (1).

Most of hemangiomas which appear at birth or neonatal period, regresses with time. They are considered the most frequent head and neck tumors of childhood (2). In the other hand, hemangiomas that appear in the adulthood are less likely to regress and tend to infiltrate vital neighboring structures (1). Loh (1) describes a case of hemangioma of the ethmoidal sinus with erosion of the lamina papyracea and the fovea ethmoidalis.

These benign tumors are classified into six types, according to its composition: capillary, cavernous, venous, mixed capillary and venous, arterial, and mixed venous and arterial by fistulous communication (2). Most of the hemangiomas of the nasal septum and vestibule are of the capillary type. However, those originated from the nasal lateral wall and paranasal sinuses are of the cavernous type (3). Although the described lesion was located on sphenoid sinus, it was of the capillary type, and, as far as we know, it is the second reported case of capillary hemangioma of this region. The first case was reported by Kilde (4) in a 22-year-old man. The capillary hemangioma is more common in female sex (3:1), in prematures and 90% appear in the first month of life. They can be superficial (65%), mixed (20%) or deeply located (15%). Among the superficial type, 60% present in the head and neck region, but the nose is a relatively seldom region. The lesions that develop in the beard region are related with a slow regression and are characterized by airway involvement.

The sphenoidal hemangioma's initial symptoms generally are caused by involvement of the neighboring structures. Most frequent complain is related to visual impairment and occurs by the lateral extension with compromise of the VI cranial nerve (4). The reported case had not suffered from invasion of adjacent structures, but his symptoms (pain and bleeding) probably would be explained by an enlargement of the lesion size related to landing atmospheric pressure variation.

The available diagnostic exams are the angiography of the feeding vessels, CT showing location and extension of the disease and magnetic resonance showing its high vascularization (1). Although imaging studies are important for the lesion approach and surgical planning, the diagnosis is established by the

histological findings (4), making preoperative diagnosis very difficult. The preoperative biopsy if necessary must be done with general anesthesia (1), but it is a very risky procedure because of the possibility of intense hemorrhage. Hayden (5) describes two cases of cavernous hemangiomas of the sphenoidal sinus which died of hemorrhage secondary to lesion biopsies.

There are many alternatives in the management of these patients and the choice relies on patient age, lesion size and location, hemangioma type, complication risk and proximity of vital structures (2). Conservative approach can be an alternative for children, for example. The treatment of choice is variable, some centers recommending surgical resection with preoperative embolization and others, systemic steroids (1,4). Intralesional steroid injection, radiotherapy, antimetabolites, sclerosing agents and cryosurgery are all reported as therapeutic options (2).

This case report emphasizes the importance of considering all the possible diagnosis when evaluating paranasal sinuses related complaints, even when faced with clinical history and complementary exams indicative of a common inflammatory disease. Although the patient reported had a good evolution with surgical management, this option must be careful considering possible hemorrhagic complications of different hemangiomas.

REFERENCES

1. Loh LE, Ho KH, Thoo A, Kwan C. Hemangioma of the ethmoidal sinuses. *Singapore Med J* 1994; 35: 211-4.
2. Freeman JL, Shemen LJ, Alberti PW, Holgate R, Pritzker KPH, Noyek AM. Ossifying capillary hemangioma of the maxillary and ethmoid sinuses- a case report. *J Otolaryngol* 1981; 10(6): 481-92.
3. Dufour H, Fesselet J, Métellus P, Figarella-Branger D, Grisoli F. Cavernous hemangioma of the sphenoid sinus: case report and review of the literature. *Surg Neurol* 2001; 55: 169-73.
4. Kilde JD, Rhee JS, Balla AA, Smith MM, Smith TL. Hemangioma of the sphenoid and ethmoid sinuses: two case reports. *Ear Nose Throat J* 2003; 82(3): 217-21.
5. Hayden RE, Luna M, Goepfert H. Hemangiomas of the sphenoid sinus. *Otolaryngol Head Neck Surg* 1980; 88: 136-8.

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