A false nasal septum deviation

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Case report

A 74 year-old woman was referred by her pneumologist with nasal obstruction, following great difficulty using the continuous positive airway pressure device prescribed for her sleep apnea. She reported nasal septum deviation, diagnosed after trauma, with bilateral low-abundance epistaxis of a few months’ evolution. As well as sleep apnea, history-taking found:

- a transient ischemic attack with partial left loss of vision;
- atheromatous plaques in the internal carotid artery, without significant stenosis;
- atroventricular conduction disorder, managed by pacemaker;
- and allergic rhinitis.

Rhinoscopy by flexible endoscope found a round purplish septal lesion covered by thin normal-aspect mucosa without hypervascularization. The mass was obstructing both nostrils, reaching the middle turbinates without extension beyond the superior part of the inferior turbinates below and, posteriorly, reaching the chondrovoval junction. There were no other abnormalities in either nostril and ENT examination was otherwise normal.

Questions

Question 1: Would you perform biopsy under local anesthesia? Justify your reply.
Question 2: Which 2 first-line radiological examinations would be asked for?
Question 3: One of them cannot be performed in this patient: why not?
Question 4: Comment on figures below.
Question 5: What is your diagnosis and treatment?

What is your diagnosis?
Replies

Reply 1

Biopsy under local anesthesia is not indicated, as this is very probably a vascular tumor.

Reply 2

The 2 first-line radiological examinations would be CT scan with contrast injection and MRI with gadolinium injection of the nasal cavity and paranasal sinuses.

Reply 3

MRI cannot be performed, due to the pacemaker.

Reply 4

Fig. 1 is a coronal slice parenchymatous-window CT scan of the nasal cavity and paranasal sinuses without contrast injection. It shows a mass centered on the nasal septum, bilaterally obstructing the mid-part of the nasal cavities and reaching the medial aspect of both middle turbinates without extending beyond the superior edge of the inferior turbinates. It measures 18 × 22 mm. There are no other anatomic abnormalities.

Fig. 2 is a contrast-injected bone-window CT scan with an axial section through the upper part of the lesion. There is strong contrast medium uptake, with calcifications and bone septa within the lesion.

Reply 5

Rhinoscopy and imaging indicate a probable nasal septum hemangioma.

Given the diagnosis, location and volume of the mass, endoscopic resection could be considered and was performed. The operation proceeded smoothly. Resection was macroscopically complete, conserving all the septal mucosa on the right side and with partial sacrifice on the left. Blood loss was 200 cm³. A gauze drain was fitted, and the patient was discharged 2 days after its removal. The diagnosis of cavernous hemangioma was confirmed on definitive histology. At 1 year’s follow-up, there was no sign of tumoral evolution and septal perforation was minimal and non-disabling, with good tolerance of positive pressure.

Comments

Hemangioma is a benign endothelial lesion, more frequent in children than adults [1]. In adults, mean age at diagnosis is 40 years, with a sex ratio of 1:1 [2]. Histologically, 3 types are distinguished: capillary, the most frequent; mixed; cavernous, the rarest, with less than 100 reported cases in the literature [3]. Facial trauma plays an etiopathogenic role [3]. Tumor growth is slow; the doubling time is not known. The origin is generally in the middle and inferior turbinates [4]; septal locations are rare [5]. The most frequent clinical signs are nasal obstruction and epistaxis [1–4]. Rhinoscopy finds a regular, generally round, red-purple mass under normal or hypervascularized mucosa [3–5]. This aspect is poorly specific and cannot rule out other forms of benign tumor: arteriovenous malformation, angiofibroma, glomus tumor or lymphangioma. In case of irregular and/or necrotic tumor or history of neoplasia, malignancy (hemangiopericytoma, hemangiosarcoma and metastasis) should be suspected, with biopsy following radiologic assessment to rule out vascular tumor [2,4]. CT without contrast injection shows a well-defined circumscribed mass; in bone window, there are intratumoral bone septa, which may create a “honeycomb” aspect [1]; contrast uptake is strong. On MRI, the lesion shows low intensity signal on T1-weighted sequences, and high intensity signal on T2 weighted sequences with enhancement on injection [1,6]. Arteriography is not systematic, and should be performed only if embolization is considered; it reveals several nutrient pedicles and vascular blush [4]; criteria for embolization are not clearly defined. Treatment is surgical and should be conservative, with removal of the perichordium and periosteum. Endoscopy is presently favored [4]. Diagnosis is founded on histology, which shows bone laminae,
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vascular capillaries and normal respiratory mucosa [4]. Late recurrence has been reported, hence the need for prolonged follow-up.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.

References