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Quiz

Whistling if small, quiet if big

Irfan Mohamad*, Anusha Balasubramanian

Department of Otorhinolaryngology-Head & Neck Surgery, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.

* Corresponding author: irfankb@usm.my

Case Summary

A 14-year-old Malay male was diagnosed to have chondrosarcoma of the nasal septum. Surgery was performed followed by radiotherapy. He was doing well during the follow up period. Clinical and endoscopic examinations of the nose were performed (Fig. 1).

Fig. 1 Endoscopic view of the nasal cavity using a zero degree endoscope inserted through the one nostril.

Questions

Q1: State the diagnosis
Q2: What is the likely presenting symptom?
Q3: How to manage the problem?

(Answer and discussion on the next page)

Answers

A1: A huge septal perforation was noted converting the nasal cavities into single space. The middle and inferior turbinates from both sides can be clearly seen from a single endoscopic view.

A2: The patient may present with whistling sound from the nose. Small perforation tends to produce louder whistle while larger-sized hole on the septum may produce no sound at all during expiration. Sometime, epistaxis and crusting do occur.

A3: Asymptomatic cases may be left alone. Surgery can be offered to close the perforation if the condition produces whistling sound. The primary cause of the perforation (e.g. infection, tumour, foreign body) must be completely treated first.

Discussion

A finding of huge septal perforation in this case was rather accidental. A big-sized perforation may produce no symptom. In contrast, a smaller hole on the septum may bring the patient for medical attention with complaint of whistling sound from the nose. Anterior quadrilateral cartilage of the septum is the most commonly part to be involved (East and Paun, 2008). The more anterior the perforation, the higher the chance, it will take to produce symptom (Mullace *et al*., 2006).

Septal perforation is commonly caused by foreign body in the nose. The commonest one is button battery, especially in children (Chua and Tan, 2006). A button battery which contains chemical component may liberate its content to the cartilaginous septum. This will erode the structure.

Trauma to the nose is another common cause of the condition. As the nasal septum get its blood supply from the overlying perichondrium, the presence of septal hematoma or septal abscess will elevate and separate the supplying mucosa from the cartilage. Avascular necrosis will be the sequalae. If the perforation is affecting the upper part of the septum, deformity to the external nose is unavoidable. This will lead to saddle nose deformity.

Surgery to the septum itself may produce such perforation. In our case, the perforation was mainly due to the surgery itself, or the radiation therapy following surgery. Previously neurosurgeon use microscope via trans-septal route to remove the pituitary tumours. This technique will increase the risk to have septal perforation. This technique is now replaced by trans-nasal route (through the nasal cavity) with the help of endoscopes. Other etiologies include surface irritants (e.g. cocaine and heroin), infection (e.g. syphilis and tuberculosis), neoplasia and inflammatory process for example in sarcoidosis and Wagener's granulomatosis.

In majority of the cases, the patient is asymptomatic. As the condition may not lead to other complication, it may be left alone (Mullace *et al.*, 2006). Epistaxis and crusting can be dealt conservatively with antibiotic and douching. If the symptoms persist, it should be surgically treated. Septal perforation can be closed by using flap, nasal septal button and few other surgical methods including cartilage graft (Chua and Tan, 2006).

References

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