

Visual Diagnosis in Emergency Medicine

SPONTANEOUS NASAL SEPTAL ABSCESS

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CASE REPORT

A 58-year-old man was referred to our hospital with a 2-week history of nasal obstruction, pain, and intermittent fever. He had visited two other hospitals, where oral antibiotics and local treatment of the nose had been given. He had no recent history of nasal trauma, surgery, sinusitis, or dental infections. Physical examination revealed bulging septal mucosa occupied his bilateral nasal cavity (Figure 1A and 1B). Maxillofacial computed tomography with contrast showed a hypodense lesion with ring enhancement measuring approximately 2.9×2.4 cm at the anterior septum (Figure 1D–1F). An emergent incision and drainage was performed under general anesthesia. Approximately 6 mL pus was drained via an incision placed just about 5 mm above the caudal border of the septal cartilage, known as Killian's incision (Video 1). Operative findings showed absence of cartilaginous septum. A septal mucosa suture with Penrose drain was placed. A bacterial culture of the purulent fluid grew *Viridans streptococcus*. The nasal septum recovered with visible bilateral inferior turbinate and nasal cavity (Figure 1C). Unfortunately, the patient finally complicated with a depressed nasal tip.

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DISCUSSION

Nasal septal abscesses are uncommon in the modern era because antibiotics are available. The most common cause of a nasal septal abscess is an infected hematoma following nasal trauma, which may be associated with accidents, septal surgery, chronic irritation, nasogastric intubation, and nasal furuncle (1,2). Some causes are secondary to odontogenic lesions, sinusitis, and incidental factors.

Nasal septal abscesses are more common in children and in males (3). The presenting symptoms of a nasal septal abscess include nasal obstruction, nasal pain, fever, and headache. The most common site of swelling is the anterior cartilagenous septum. A non-otolaryngologist may confuse these signs with swollen inferior turbinates and miss the early management (1).

Early abscess drainage and administration of adequate antibiotics are essential in the treatment of nasal septal abscesses (2). Fine-needle aspiration can be performed for a localized abscess in the nasal cavity; however, if the symptoms persist or recur, or if imaging indicates that septal cartilage is absent, incisional drainage with Penrose placement with or without nasal packing is necessitated (1,2). Delay in treatment can result in saddle-nose deformity due to a necrotic septum. A review article suggests early septal reconstruction in children to prevent immediate and late facial deformity and nasal dysfunction (3).

Spontaneous nasal septal abscess is relatively rare; it requires early diagnosis and proper management to

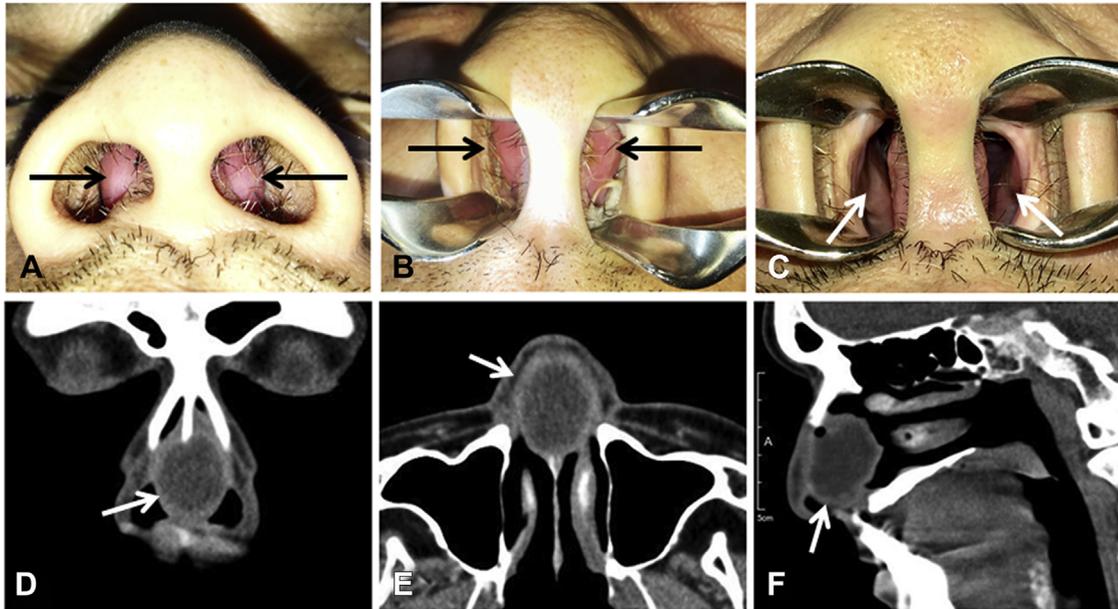


Figure 1. (A and B) Congested and bulging septal mucosa occluded bilateral nasal cavity (arrows). (C) Swollen nasal septum was resolved and bilateral inferior turbinate (arrows) and nasal cavity was visible following operation. (D–F) Maxillofacial computed tomography with contrast showed a hypodense lesion with ring enhancement about a size of 2.9×2.4 cm at anterior septum (arrows).

prevent lethal complications, such as meningitis, brain abscess, and cavernous sinus thrombophlebitis (1–3).

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SUPPLEMENTARY DATA

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jemermed.2019.05.031>.

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