

## Septal Hematoma of Unknown Origin: Rare Case Report

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### Abstract

### Case Report

**Introduction:** Hematomas and septal abscesses are frequent complications of nasal trauma, and they can also appear in the post-surgical period of nasal surgeries, in nasal furunculosis and in dental infectious processes. They are uncommon in the pediatric population [1]. According to the literature, approximately 0.8% of trauma cases are complicated by a septal abscess and 1.6% by a septal hematoma. In many cases, no history of trauma is found [2]. **Clinical case:** The case of a 19-year-old patient is presented, with no significant pathological history, denies substance use, clinical picture of approximately 3 days that is characterized by facial pain on the left side of the face predominantly nasal, hyaline rhinorrhea, ventilatory insufficiency. Bilateral nasal passages, anosmia and unquantified temperature rises, without apparent cause, denied any history of nasal trauma. **Discussion:** in this particular case, the unusual location of necrotizing fasciitis in the anterior region of the neck is striking; it generally occurs in people with diabetes mellitus and immunocompromised people and in this case, it occurs without apparent cause. **Conclusion:** It is concluded that the need for rapid diagnosis and treatment in patients with nasal septal abscess should be emphasized to reduce the risk of infectious complications, permanent functional disorders and aesthetic deformities.

**Keywords:** Septal Hematoma, Abscess, Nasal Septum, Trauma.

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## INTRODUCTION

The first reported case of septal abscess is attributed to Cloquet and dates back to 1810; Treatment consisted of incision and drainage [1].

Hematomas and septal abscesses are frequent complications of nasal trauma, and they can also appear in the post-surgical period of nasal surgeries, in nasal furunculosis and in dental infectious processes. They are uncommon in the pediatric population [1]. According to the literature, approximately 0.8% of trauma cases are complicated by a septal abscess and 1.6% by a septal hematoma. In many cases, no history of trauma is found [2].

Both septal hematomas and septal abscesses are characterized by the presence of blood or pus in the subperichondrial space, which compromises the irrigation of the septal cartilage. It is necessary to make

an early diagnosis in order to avoid complications in the short and medium term.

The objective is to minimize comorbidities, calling for check-ups 48-72 hours later in case of nasal trauma. In this report we present an unusual clinical case of septal hematoma of unknown origin, which requires surgical resolution [3].

## CLINICAL CASE

The case of a 19-year-old patient is presented, with no significant pathological history, who denies substance use, with a clinical picture of approximately 3 days that is characterized by left-sided facial pain predominantly nasal, hyaline rhinorrhea, and bilateral nasal ventilatory insufficiency, anosmia and unquantified temperature rises, without apparent cause, denied any history of nasal trauma.

### Physical Exam

**Ears:** right ear wax plug, left ear, patent ear canal, intact tympanic membrane, ventilated middle ear, fauces, teeth in good condition.

**Nose:** Dorsum centered, edematous, without color changes in the skin, nostrils, presence of bilateral septal hematoma that occupies both nostrils that does not allow further structures to be assessed, soft, mobile and painful consistency on palpation.



Figure 1: Nasal edema

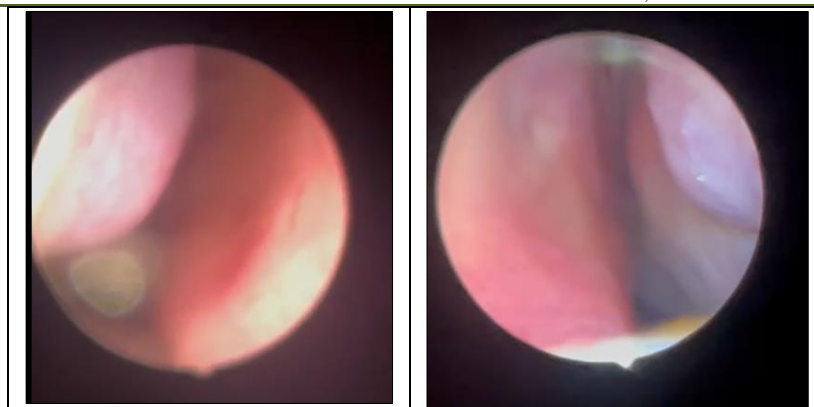


Figure 2: Right septal hematoma seen with anterior rhinoscopy

### RESULTS

Considering a diagnosis of septal hematoma, surgical resolution is performed, drainage of bilateral septal hematoma, 4 ml of hematopurulent fluid is

obtained from the right nostril and 3 ml from the left nostril, a toilet is performed with physiological solution, subsequently splint, spongostan and bilateral anterior tamponade are placed [3].



**Figure 3: Anterior rhinoscopy with bilateral 0° optics**

Anterior rhinoscopy with bilateral 0° optics: after drainage of bilateral septal hematoma. Patent inferior and middle meatus of bilateral nasal passages are observed.

## DISCUSSION

The septal cartilage is nourished by an imbibition mechanism from the blood vessels of the mucoperichondrium. Nasal trauma triggers rupture of blood vessels with blood accumulation between the mucoperichondrium and cartilage, resulting in avascular necrosis and liquefaction of the latter. The damage begins after 24 hours and the necrosis consolidates after 72 hours after the trauma [4]. For this reason, the patient should be scheduled for follow-up after this period, to exclude late hematoma formation.

Nasal ventilatory insufficiency is the main reason for consultation in patients with septal hematoma [4] 50% of patients present facial pain and, in a lower percentage, deformity of the nasal dorsum, epistaxis, purulent rhinorrhea and fever [5].

The diagnosis is clinical, but requires a thorough and systematic physical examination [3]. It can be performed with otoscopy, with a nose speculum plus frontal light and/or with a rigid or flexible endoscope. The nasal tip lifting maneuver usually causes pain. A septal hematoma is identified as a unilateral or bilateral bulge (especially with concomitant fracture), which does not disappear when treated locally with vasoconstrictors and which fluctuates on palpation [5].

The treatment is surgical. It begins with a needle puncture-aspiration and the sample is sent for bacteriological culture [6]. An L-shaped or transverse Killian I mucosal incision, washing with saline solution, and debridement are then performed [7]. Although some studies question it due to the risk of superinfection, several authors recommend placing a Penrose-type drain [3]. After drainage, and in order to bring the mucosa closer to the septal cartilage, the placement of a nasal splint avoids dead space and, thus, hematoma reaccumulation [5]. The performance of nasal packing

with gauze soaked in liquid Vaseline or with nasal plugs is described. The latter are preferred because they are more comfortable for the patient and easier to place and remove [2]. Empiric antibiotic treatment with amoxicillin plus clavulanic acid is indicated [8]. To avoid superinfections by *S. aureus*, *H. influenzae* and *Streptococcus pneumoniae*. The packing is removed after 48-72 hours [9].

Early postsurgical complications are recurrence, seroma or infection [9]. In the long term, complications are mainly aesthetic and functional, such as saddle deformity of the nasal dorsum, upward rotation of the nasal tip, and hypoplasia or retroposition of the middle third of the face [5]. The latter may appear up to at least 12 months later [10].

Radiography in general is not useful, except when there is suspicion of associated pathology (fracture of the septum). Soft tissue edema is usually observed in the nasal cavity. Computed tomography should be performed if complications are suspected [10].

## CONCLUSION

It is concluded that the need for rapid diagnosis and treatment in patients with nasal septal abscess should be emphasized to reduce the risk of infectious complications, permanent functional disorders and aesthetic deformities.

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