

Case Report

Alar cartilage hematoma of the nose secondary to facial trauma

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ABSTRACT

A 27 years old male patient victim of road traffic accident presented to emergency department by ambulance team with ankle swelling and decrease range of motion, seen by orthopedic team and admitted as case of right ankle fracture for surgical intervention. Patient then referred to otolaryngology regarding on and off nasal bleeding and right nasal swelling arising from inner surface of right lower lateral cartilage of the nose 6 hour after the facial trauma, we present this case of hematoma of lower lateral cartilage which consider as one of the unique and rare condition following nasal and facial trauma. Early recognition of this condition is important, also differentiation between alar hematoma and septal cartilage hematoma is not easy for non-otolaryngology doctor, so increase awareness of this condition as one of possible sequel of facial trauma and early referral to otolaryngology services is crucial. We present here a case of right sided alar cartilage hematoma, including the approach, management and follow up of the patient. We recommend early surgical drainage to optimize aesthetic outcome after trauma.

Keywords: Facial trauma, Hematoma, Lower lateral cartilage hematoma, Incision, Drainage

INTRODUCTION

Nasal injuries are a common event seen in the Emergency department indeed, nasal fractures are the most common type of facial fractures.^{1,2} Not only the nasal bone fracture occurred in trauma, soft tissue injury and vascular injury are considered as serious consequences to nasal trauma.³ Among those injuries vascular injury without derange will form hematoma and can be complicated by abscess or destruction of under lining cartilage.^{4,5}

Hematoma mostly developed in nasal septum after trauma, rarely developed in another place in the nose. Hematoma involving the nasal tip and alar cartilage is rare and till now very limited number of cases mentioned in literatures.⁶ According to Govind et al less than 10 cases found in literatures.⁷

CASE REPORT

A 27 years old male patient victim of road traffic accident brought by ambulance to the emergency department, initial patient was received by ER team primary survey made, his airway was patent, C-spine supported by cervical collar, breathing and ventilation maintained, there was active bleeding from the nose controlled by nasal packing, neurological examination within the normal.

After secondary survey patient admitted with orthopedic team for right side ankle fracture for surgical management. Urgent consultation made to ENT regarding right side nasal mass, suspicion of septal hematoma.

Patient assessed by ENT team and according to the patient this mass appears after the trauma, there was nothing before. No nasal obstruction, no bleeding, no CSF leak, no change in bony skeleton framework (no external nasal deformities).

On examination anterior rhinoscopy done we found that there is a swelling arising from inner surface of right lower lateral cartilage, round in shape, red to purple in color, compressible and can be separated from nasal septum. No septal hematoma, no DNS, no mucosal injury throughout the nasal cavity. Endoscopic examination of posterior nasal cavity and nasopharynx unremarkable. Normal larynx in scope. Routine lab investigation ordered and was normal.

Computed tomography scan done showed soft tissue density mass occupying the area of right lower lateral cartilage with irregular border pushed medially almost touching the septum.

All paranasal sinuses were clear apart from right maxillary sinus mucosal thickness. No DNS.

So, the decision made for the diagnosis as right alar cartilage hematoma.

The plan made to do incision and derange of hematoma under local anesthesia.

Patient then send to well-equipped ENT clinic, patient was on supine position, then we apply the disinfectant (chlorhexidine) in small gauze and clean the area around the swelling. Aspiration done first; very minimal amount of blood aspirated around 1.5 ml. Then local anesthesia (lidocaine 1%) pure without adrenaline injected around 3 ml on lateral side of right vestibule.

Incision made horizontally along the inferior border of swelling. Simple dissection carefully with microsensors through the incision made till all blood coming out.

Irrigation with suction to remove the clotted blood, then we insert small piece of Vaseline gauze inserted inside the wound.

Then anterior nasal pack inserted. Twenty-four hour later nasal pack removed, and examination showed no re-collection.

We decided to put another pack for 72 hours plus antibiotic and pain killer. We removed the nasal pack and patient discharged from ENT for appointment after 10 days.

On follow-up appointment patient has no trouble on breathing, no blood or abscess collection, no change in shape of lower lateral cartilage. We lost the follow up with patient since.



Figure 1 (A and B): Anterior rhinoscopy and basal view of the nose, showing the right alar cartilage hematoma.

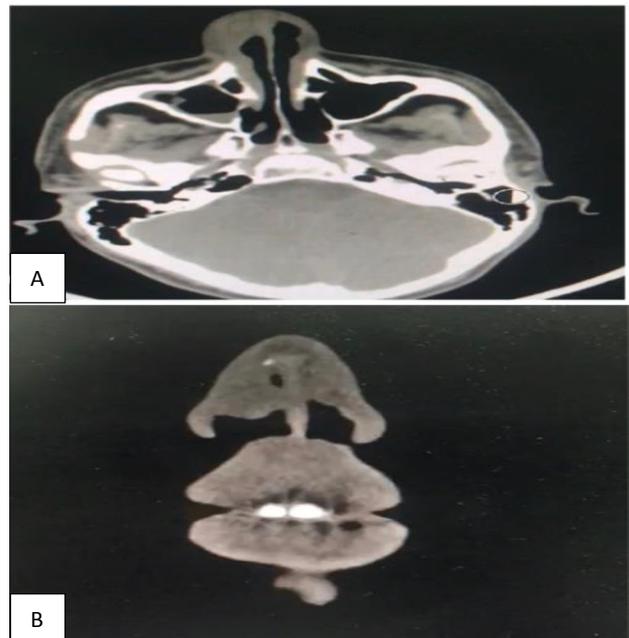


Figure 2 (A and B): CT scan of head and neck, axial cut at level maxillary sinus showing soft tissue density occupying the right area of the nose and CT scan of head and neck, coronal cut, at level of nasal vestibule.



Figure 3: Post incision and drainage.



Figure 4: 72 hours post incision and drainage.

DISCUSSION

Trauma in the face and the nose are common problem.⁸

Because of the anatomy of bone in the nose and the poor support provided by the septal cartilage, lesions in these structures are more common following nasal trauma.⁹

Septal hematoma is an uncommon complication of facial trauma, occurred due to accumulation of hematoma between the cartilage and the mucoperichondrial secondary to trauma.

Septal hematoma following nasal trauma is serious condition. If not treated, the hematoma can become infected, and severe complications can develop, ranging from a severe aesthetic deformity to an intra-cranial infection to death due to a cerebral abscess.¹⁰

In some cases, spontaneous non traumatic septal hematoma may occur.⁶ If the hematoma is not removed, it can lead to different clinical presentation.⁹ Less problematic presentation of septal hematoma is thickening of the septum, and posterior obstruction. Other

serious complication is necrosis of cartilage that produces deforming aesthetics of the nose.⁷

For this reason, surgical treatment should be immediate to achieve more favorable outcome and avoid most serious complications

It is also recommended that antibiotic therapy be combined with surgical management.⁷ Although there have been numerous reports of septal hematoma following nasal trauma, there have been only a few reports of hematomas in lower later cartilage of the nose.

In these cases, the underlying cause has always been nasal trauma, with most of these cases occurring in children.⁶

Often the clinical details of these lesions are less severe in the presentation because they appear small in the nasal vestibule and not causing significant nasal obstruction.⁷

However, the evaluation and management are similar to those of a septal hematoma, and delay in management may lead to significant disability.⁷

Therefore, immediate surgical treatment is advisable to reduce the risk of deformity and serious complication.

CONCLUSION

It should be emphasized the importance of early detection and treatment of this type of trauma to the nose to best prevent aesthetic complications and changes. The deformities and consequences that can occur are equally severe when a hematoma is present in the septal cartilage. Therefore, it should always be remembered that a hematoma can occur after nasal trauma and can affect any anatomic region of the nose. Surgery is the treatment of choice regular follow up is needed to assess any recurrence.

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