

AN UNUSUAL LABIAL HEMATOMA WITHOUT ASSOCIATED FRACTURE FOLLOWING TRAUMATIC INJURY TO CHIN – A CASE REPORT WITH MINI REVIEW

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Abstract

Hematoma if untreated may possibly lead to poor wound healing, localized infection, and skin necrosis. Usually, hematoma following maxillofacial injury is associated with fracture of the facial bones. We report a case in which the patient sustained a blunt injury to the chin that resulted in a massive expanding hematoma of the chin without any associated facial bone fracture. The hematoma was evacuated under local anesthesia and periodic follow up of the patient revealed satisfactory healing of the traumatized area. This case report highlights the fact that a vigilant clinical & radiological examination coupled with thorough hematological investigations is essential in patients presenting with posttraumatic hematoma following blunt trauma.

Key words: *hematoma, facial fracture, trauma*

I. Introduction

Hematoma is a swelling or mass of blood that is usually unclotted and is confined to an organ, tissue, or space, and is caused by a breach in the integrity of a blood vessel.¹Hematomas may develop spontaneously due to a

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traumatic event or they may develop slowly in a chronic expanding form following surgery or a vascular defect. It occurs because the wall of a blood vessel has been damaged and blood has leaked into tissues where it does not belong, finally resulting in significant swelling.² Hematoma following maxillofacial injury is usually associated with fracture of the facial bones. Literature shows that in addition to the facial fractures, hematoma can also be encountered in the maxillofacial region following administration of local anesthesia or implant placement especially in the anterior mandible.^{3,4,5} Patients on anti-coagulants and those suffering from bleeding disorders are also prone to develop posttraumatic hematoma due to compromised blood coagulation.⁶ Hematoma if untreated may lead to poor wound healing, localized infection, and skin necrosis.^{7,8} They even cause fibrosis and hence untreated hematomas in the maxillofacial region can cause psychological stress and social discomfort to the patient. Literature is scanty with documented cases showing hematomas following traumatic injury to the maxillofacial skeleton in the absence of fracture.⁹ We report a rare massive expanding hematoma of the chin following blunt injury without any associated facial bone fracture.

II. Case report

A 60 year old male patient reported to our unit complaining of pain and swelling in relation to lower lip and chin. He gives a history of road traffic accident 5 hours back when a bike collided with an autorickshaw in which he was travelling. He fell down from the autorickshaw onto the road and sustained an injury. No history of loss of consciousness & vomiting. The patient was taken to a local medical practitioner who applied an astringent in the anterior region of the mandible to arrest the bleeding. Later the patient reported to our unit for further treatment. The skin over the swelling was bluish in appearance with multiple blebs. On clinical examination, the swelling involved the entire lower anterior aspect of the mandible, obliterating bilateral buccal spaces in contiguity. Mouth opening was adequate with proper protrusive movements of the mandible and the occlusion was stable. Examination revealed no step deformity or crepitus in the mandible. Intraoral examination revealed the absence of sublingual hematoma or elevation of floor of the mouth but the labial vestibule was obliterated with a firm swelling [Figure 1]. Written consent was obtained from the patient. Considering the fact that there was no active pulsating bleeding from a vessel at the site of the swelling in addition to the duration of time from the time of injury to the time of reporting to our unit, exploration of the swelling was carried out under LA. Exploration of the firm swelling in the anterior region of the mandible revealed a hematoma which was evacuated [Figure 2a & 2b]. An orthopantomogram was taken, and any associated mandibular fracture was ruled out with due care in evaluating the symphysis area and bilateral condylar areas considering the fact that an impact at the mandibular symphysis may just cause a direct soft tissue injury but an indirect bony injury [Figure 3]. Patient was kept on periodic follow up for managing the soft tissue injury. Postoperative period follow-up of the patient revealed that the surgical area healed satisfactorily [Figure 4].

FIGURE 1: PREOPERATIVE VIEW OF THE LABIAL HEMATOMA



FIGURE 2: INTRAOPERATIVE VIEW OF THE LABIAL HEMATOMA



FIGURE 3: PREOPERATIVE OPG SHOWING THE ABSENCE OF FRACTURE



FIGURE 4: POSTOPERATIVE VIEW OF THE LABIAL HEMATOMA



III. Discussion

Accumulation of blood under the lipo-cuticular region of the skin is described as hematoma.¹⁰ The most common posttraumatic etiology for hematoma is due to periosteal breach, osseous bleed from the fractured segments and arterial or venous bleed.⁹ Literature shows that a traumatic arterial rupture would result in an instant hematoma but a venous rupture may not develop a hematoma.³ The density and the compactness of affected tissue usually determine the size of the hematoma.³ Subcutaneous hematomas are commonly encountered following soft tissue injuries.^{9,11} Though the formation of hematoma is rare in adults, in the pediatrics hematomas can occur following blunt injury to the facial skeleton.¹² Usually hematomas smaller than 2cm are managed using ice pack compression of the affected area but hematomas that are larger than 2 cm or with continued expansion require evacuation.^{13,14} Anticoagulated patients and patients with bleeding disorders are also prone to develop posttraumatic hematoma due to compromised blood coagulation.⁵ In spite of the fact that the patient did not have any underlying systemic conditions nor was on anticoagulant therapy, he developed a massive hematoma following blunt trauma in the labial buccal vestibule without an underlying fracture makes this case unique. The likely etiology for the resultant massive hematoma could be the rupture of the inferior labial artery following trauma.⁹ Large hematomas are emergent and require open evacuation and coagulating the offending bleeders while small hematomas are amenable to needle aspiration.¹⁵ If untreated, large hematoma can cause a bluish discoloration of the overlying skin owing to venous congestion or intense pallor resulting from arteriolar insufficiency.⁹ In addition, depending on its location the surrounding vital structures may get compressed leading to life-threatening situation. Untreated minor hematoma usually gets absorbed by the body. The blood will surface to the skin causing a bruised appearance. As the bruise is healing, it will turn yellowish-green and then gradually fade.⁹

IV. Conclusion

The case report is unique owing to the severity of the hematoma and its unusual presentation in the presence of no associated injury or fracture of bony component in the vicinity. This case report emphasizes that a vigilant clinical & radiological examination in addition to complete hematological investigations is necessary for all patients presenting with posttraumatic hematoma following blunt trauma.

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