Massive expanding hematoma of the chin following blunt trauma

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ABSTRACT

Posttraumatic hematoma of the face is common and usually self-limiting in nature. We report an unusual massive expanding hematoma of the chin within 9 h following a blunt trauma with no associated injuries or fracture.

Case Report

A 55-year-old female patient reported to the dental office with a diffuse swelling in relation to lower lip and chin, following an accidental slip and self-fall from staircase 9 h ago. The skin over the swelling was bluish in appearance with multiple blebs [Figure 1]. On clinical examination, the swelling involved the entirety of the lower anterior aspect of the mandible, obliterating bilateral buccal spaces in contiguity [Figure 2]. Intraoral examination established the absence of sublingual hematoma or elevation of floor of the mouth. An orthopantomogram was taken, and any associated mandibular fracture was ruled out [Figure 3].

Following general and systemic examination, routine surgical workup, and anesthetic assessment, definitive procedure under total intravenous anesthesia was planned. Multiple stab incisions were placed to facilitate drainage and evacuation the hematoma [Figure 4].

Postoperative period was uneventful, and the patient was discharged following resolution of symptoms.

Discussion

A hematoma is described as an accumulation of blood under the lipo-cuticular region of the skin.[1] The most common posttraumatic etiology for hematoma is due to periosteal

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breach, osseous bleed from the fractured segments and arterial or venous bleed. Anticoagulated patients and patients with bleeding disorders are also prone to develop posttraumatic hematoma due to compromised blood coagulation. In the reported case, though the patient did not have any underlying systemic conditions nor was on anticoagulant therapy, she still developed a massive hematoma following blunt trauma. The likely etiology for the resultant massive hematoma could be the rupture of the inferior labial artery following trauma. If the hematoma is due to arterial bleed, then it characteristically increases in size because of significantly greater pressure of blood within the artery. Venous bleed is usually self-limiting may or may not cause hematoma. Major hematomas are emergent and require open evacuation and coagulating the offending bleeders. Minor hematomas are those smaller collections of blood that are amenable to needle aspiration. If untreated, major hematoma can cause a bluish tinge of the overlying skin owing to venous congestion or intense pallor resulting from arteriolar insufficiency within 48 h. Venous congestion is more common than arteriolar ischemia. 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. However in some cases, it can result in the formation of long-standing knots and contour irregularities and puckering under the skin with resulting hyperpigmentation. Table 1 enumerates the available treatment options – broadly classified as conservative and surgical methods.

Table 1: Treatment options in management of posttraumatic hematoma

| Conservative                                      | Surgical                                   |
|---------------------------------------------------|--------------------------------------------|
| Pressure dressing on for at least 8 h             | Incision and drainage                      |
| Do not take aspirin and anticoagulant drugs 72 h  | Removal of the clot                        |
| Apply ice packs for 20 min one or more times      | If active expanding hematoma identifies    |
| during the first 24 h following the formation of  | the source of bleed and cauterize the      |
| the bruise or hematoma                            | bleeding vessel                            |
| Apply warm packs to the site for 20 min during    | Leave the incision open to facilitate      |
| the second 24 h after collection                  | drainage                                   |
| Proteolytic enzymatic drug like chymotrypsin      | Suturing may be required if the incision   |
| helps in reduction of the hematoma                 | site remains patent                         |

Conclusion

The case is of clinical interest owing to the severity and its unusual presentation with no associated injury or fracture of bony component in the vicinity. Careful clinical, radiological examination, supplemented with blood investigations are necessary for all patients presenting with posttraumatic hematoma following blunt trauma.
Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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