



THE INTRICACIES OF PRESENTATION: EXPLORING TRAUMATIC FACIAL SOFT TISSUE HEMATOMA WITH COEXISTENT CHRONIC ALCOHOLISM AND LIVER CIRRHOSIS - CASE REPORT

Maxillofacial Surgery

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ABSTRACT

Facial soft tissue hematoma is a well-documented consequence of facial trauma. However, in the presence of concurrent chronic alcoholism and liver cirrhosis, the dynamics of hematoma formation and its subsequent management can pose significant challenges. This case report aims to delve into the intricacies of facial soft tissue hematoma in a patient with chronic alcoholism and liver cirrhosis, shedding light on the clinical presentation, diagnostic work-up, and management approach. By exploring this unique case, we aim to underscore the importance of considering underlying systemic factors when encountering facial hematomas, emphasizing the need for a comprehensive and multidisciplinary approach to optimize patient outcomes. The management approach, encompassing conservative measures, surgical intervention, and addressing the underlying systemic conditions, is also highlighted.

KEYWORDS

Soft tissue Haematoma, Facial Trauma, Liver cirrhosis

INTRODUCTION:

Among the various traumatic complications, swelling and hematoma resulting from facial contusions are highly prevalent. Traumatic hematoma is a prevalent clinical entity observed across various medical disciplines, involving the localized accumulation of blood within tissues following trauma. Hematomas can manifest in a diverse range of anatomical sites, encompassing the head, extremities, abdomen, and soft tissues.¹

Although such issues typically resolve without active intervention, it is crucial to address hematomas to prevent fibrosis. If left untreated, the progression of fibrosis can lead to cosmetic deterioration, significantly impacting the affected individual's psychological well-being and social interactions. Hematomas often arise in the aftermath of trauma, such as motor vehicle accidents, falls, head injuries, fractures, physical assaults, and gunshot wounds.²

Higher susceptibility to hematoma development is observed in patients taking anticoagulants, those with bleeding disorders, and individuals with medical conditions that affect platelet count or function. These medical conditions encompass hepatitis, prolonged alcohol abuse, vitamin K deficiency, and viral infections. Bleeding risk is notably heightened by the synergistic interplay between long-term alcohol abuse and advanced liver cirrhosis.¹

Given the unparalleled visibility and aesthetic significance of the face, any injury-affecting features demand meticulous attention, this article centers on the nuances of soft-tissue trauma in this area. Such injuries demand specific consideration and tailored approaches to restore both physical and psychological well-being.³

In the documented case, we illustrate the clinical scenario of a male aged 39 years who develops a hematoma on the left cheek after a self-induced fall while in an alcohol-intoxicated state, with underlying liver cirrhosis. To excavate the hematoma and mitigate the likelihood of an apparent external scar, an intraoral surgical intervention was performed.

Case Report:

A male patient aged 39 years sought medical attention for swelling observed on the left side of his face, which developed following a self-induced fall from a staircase while intoxicated with alcohol, occurring one day prior to the consultation. The individual suffered a fall while traversing the stairs, with the left side of his body bearing the brunt of the impact. After a delay of 24 hours, the patient expediently sought urgent medical attention at the emergency department, presenting with a distressing facial deformity caused by prominent swelling predominantly affecting the left cheek.

Following an in-depth evaluation of the patient's case history, it was revealed that the individual had a prolonged pattern of chronic alcohol

consumption. Moreover, his medical records indicate a documented case of liver cirrhosis, and he is currently undergoing medical treatment. Significantly, there were no indications of loss of consciousness in the patient's reported history.

In the course of the comprehensive general clinical examination, a notable finding was the presence of icterus in the patient, evident by the discernible yellow tint exhibited in the sclera, indicative of underlying hepatic dysfunction.

The extraoral clinical examination revealed a distinct dark purplish discoloration encompassing the facial skin, which was overlying the diffuse swelling on the left side of the face. Furthermore, infraorbital ecchymosis was evident. The intraoral examination exposed the presence of ecchymosis in the buccal mucosa of the left maxillary vestibule, a maximal interincisal distance of 32 mm alongside indications of suboptimal oral hygiene. Upon conducting bimanual palpation, tenderness was identified in the swelling, while no crepitus, the characteristic crackling sensation, was not appreciated. (Fig 1)



Figure 1: The Preoperative clinical photographs depict a pronounced facial asymmetry, with a distinct and prominent dark-purplish discoloration evident on the facial skin. This discoloration is localized to the area of diffuse swelling present on the left side of the face, accompanied by infraorbital ecchymosis.

The patient was advised to undergo radiographic evaluations in order to rule out the presence of facial bone fractures, well as investigations to evaluate his blood profile. A comprehensive assessment of the patient's blood parameters was recommended, consisting of a meticulous evaluation to rule out bleeding disorders and assess liver function. These encompassed investigations including coagulation tests and complete hemogram, including the liver function tests (LFT).

Computed tomography (CT) imaging of the faciomaxillary regions unveils poorly delineated, hyperdense, and heterogeneous swelling

observed in the left infraorbital and pre-maxillary region, suggestive of a hematoma. Notably, no radiographic evidence of facial bone fracture is discernible. (Fig 2)

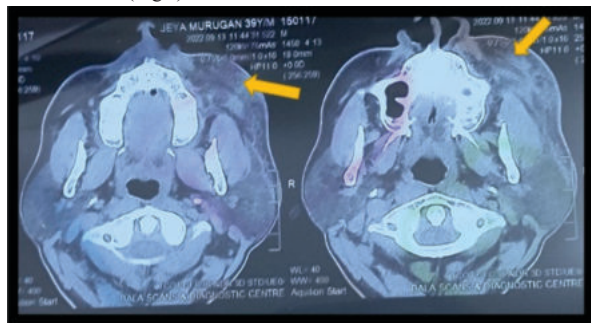


Figure 2 :Axial sections of the computed tomography imaging in the facio-maxillary regions reveal a poorly defined, hyperdense, and heterogeneous swelling observed in the left infraorbital and pre-maxillary region, indicating the presence of a hematoma.

In light of the ascertained traumatic facial hematoma, a judicious therapeutic plan encompassing surgical intervention under local anesthesia was devised. In adherence with ethical norms, the patient and the accompanying caregivers were apprised of the proposed procedure, and informed consent was conscientiously obtained.

The patient's skin was meticulously painted using an antiseptic solution, ensuring aseptic conditions. Subsequently, the patient was appropriately draped with a sterile cloth, ensuring the maintenance of a sterile field. With the patient appropriately anesthetized using a nerve block of the infraorbital, posterior superior alveolar nerve, and local infiltration, an intraoral vestibular incision was precisely placed, spanning from the 24 to the 27. Through careful flap elevation, and employing blunt artery forceps, the access area was cautiously widened, facilitating safe and controlled entry into the buccal space to ensure comprehensive evacuation of the hematoma.

With utmost care, the blood clots occupying the space were extracted, and external pressure was then strategically applied by gently compressing the area over the malar prominence. This deliberate action resulted in the expulsion of blood clots from the site. In the absence of fresh bleeding, the wound was irrigated with saline, and subsequently, layered suturing using 3-0 round body vicryl sutures was performed.

Application of an external compression pack over the area of the previous swelling was implemented to effectively prevent dead space. Antibiotics and anti-inflammatories with pain medications were prescribed. During the follow-up appointment at the one-week mark, significant progress was observed, characterized by a marked reduction in swelling and a noticeable decrease in discoloration. In light of the patient's alcoholism, counseling interventions were implemented to encourage quitting, and a referral was arranged to a rehabilitation center.

DISCUSSION:

A hematoma represents an aberrant gathering of blood within a body space, situated outside the confines of the blood vessels. The magnitude and dissemination of the hematoma are contingent upon its vascular derivation (capillary, venous, or arterial) and the particular tissue from which the bleeding arises (such as muscle, fat, or interstitial tissue).⁶ Within the domain of oral and maxillofacial surgery and facial trauma, facial hematoma stands as a well-recognized complication. Traumatic facial injuries frequently result in pronounced and visibly distorted appearances, causing substantial disfigurement that profoundly changes the physical outlook of affected individuals.⁵

The occurrence of hematoma in the nasal septum is well-documented, primarily attributed to nasal trauma. Inadequate treatment of these hematomas can result in complications like septal necrosis, perforation, and the subsequent development of saddle nose deformities. Hematoma and ecchymosis can develop on the facial skin either immediately or after a few hours, frequently accompanied by tissue necrosis.⁴ Additionally, individuals may experience paresthesia and anesthesia in certain instances. The patient may also encounter discomfort and restricted mouth opening, commonly known as trismus.³

A typical resolution timeline for the swelling and discoloration of the affected region is around 10 to 15 days. Currently, no established therapeutic protocol for managing this complication has been documented. Spontaneous resolution is frequently observed in the majority of hematomas, particularly those originating beneath the skin, thus obviating the necessity for medical intervention.³

The central tenets of treatment should center on minimizing swelling, alleviating pain, and implementing measures to prevent secondary infection.

Subcutaneous hematomas smaller than 2 cm can be managed conservatively in the acute phase by applying pressure and using ice. The prompt use of ice on the hematoma facilitates vasoconstriction, leading to a decrease in its size and offering palliative comfort. Analgesic medication is prescribed if patients experience pain and should refrain from applying heat, as it can potentially exacerbate the hematoma by inducing vasodilation. Unless there is a substantial risk of infection spread, antibiotics are typically not recommended in minor cases, as they are not deemed essential.⁷

Hospital admission should be contemplated in life-threatening cases, particularly those involving expanding hematomas, to ensure appropriate management. To mitigate the risk of ischemic damage to surrounding structures, the drainage of larger hematomas should be given due consideration.² Subcutaneous hematomas larger than 2 cm or demonstrating ongoing expansion may necessitate drainage, which is achieved by either employing a broad-gauge needle or performing a stab incision to facilitate drainage. Non-intervention poses a remote risk of the hematoma progressing into a chronic fibrotic lesion.⁷

This case report delves into the complexity involved in managing traumatic facial soft tissue hematoma in patients with concurrent chronic alcoholism and liver cirrhosis. It emphasizes the significance of a comprehensive evaluation, including a detailed medical history, appropriate diagnostic investigations, and a multidisciplinary approach to treatment. Additionally, highlights the impact of chronic alcoholism on the coagulation profile, impaired hepatic function, and its potential additive effect in increasing the risk of hematoma formation.

By recognizing the interplay between these factors, healthcare professionals can optimize patient care and improve outcomes in such challenging cases. Additional investigation is necessary to gain deeper insights into the fundamental processes and establish evidence-based recommendations for the treatment of traumatic facial soft tissue hematoma in individuals with coexisting chronic alcoholism and liver cirrhosis.

The in-depth scientific inquiry into the intricate mechanisms underlying traumatic facial soft tissue hematoma in patients with coexisting systemic conditions is pivotal to advancing our knowledge and establishing evidence-based guidelines for optimal clinical management.

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