

Case Report

A Case of Bilateral Orbital Subcutaneous Emphysema after Chest Wall Trauma

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Abstract

The Subcutaneous Emphysema (SE) is defined as the occurrence of forced passage of air and/or other gases to inside of the soft tissues, below the dermal layer or mucous membranes. The anatomic sites that are most commonly affected include neck, thorax and face. It can also occur the spread of air at a distance through the subcutaneous space, and muscular fascia between the areas involved. The orbital SE is considered a benign disease, mostly self-limited, that presents a spontaneous regression in one to three weeks, however depending on the localization, it can lead to hemodynamic instability. Here we present a case report of exuberant orbital subcutaneous emphysema, diagnosed by the dermatologist, being opted the conservative treatment with total remission of symptoms.

Case Report

A 62-year-old male patient, businessman, complaining of eye edema in the last few hours presented at the Emergency Room (ER) after falling from a ladder at 1,80m high in his house. The patient reported pain in the right shoulder, body excoriations and headache; and did not presented symptoms like dyspnea, chest pain and pain in other topographies. He was medicated by the ER staff with intramuscular non-steroidal anti-inflammatory, showing, a few minutes later, bilateral symmetric orbital edema associated with local discomfort. Regarding comorbidities, he was hypertensive and smoker. The physical examination revealed a bilateral eyelid edema, symmetric and

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painless (Figure 1a), while the local palpation showed the presence of crackling. The patient was treated with antihistamine and corticoid, without any improvement, and he evolved to a progressive worsening of the edema (Figures 1b & 1c). Chest radiography and computed tomography of the skull were did (Figures 2a & 2b).



Figure 1a, 1b & 1c: 1a - Patient at admission presenting bilateral facial and periorbital edema; 1b and 1c -Evolution of the patient, with progressive worsening of the edema.

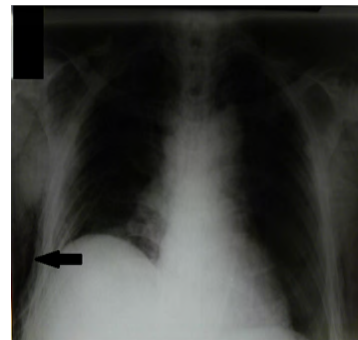


Figure 2a: Chest X-ray evidencing the subcutaneous emphysema area on the lateral region at right; possible fractures were ruled out.

The Department of Dermatology of the Jundiaí Medical School (FMJ) was asked to evaluate the patient considering the diagnostic hypothesis of angioedema. However, facing the clinical picture, physical examination and imaging exams the diagnostic of bilateral orbital subcutaneous emphysema resulting from blunt trauma was performed.

The orbital subcutaneous emphysema was accompanied in an outpatient setting, as it presented clinical stability. It was treated in the symptomatic patients and the antibiotic prophylaxis was performed. At a 10-days-period, the spontaneous remission of the signs and symptoms was observed, without complications (Figures 3a & 3b).

Discussion

The Subcutaneous Emphysema (SE) is defined as the forced passage of air and/or other gases to the inside of soft tissues, below the dermal layer or mucous membranes [1]. The anatomic sites that are

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