

## Spontaneous Orbital Emphysema: A Case Report

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### I. Introduction

Orbital emphysema corresponds to the passage of air into the orbit following a fracture of the sinus wall, the clinical expression of which depends on its importance. It's most often benign and resolves without sequelae. But in some cases it can be cause compression of the optic nerve and requires emergency treatment [1,2].

#### Clinical case

We report the case of a young patient who presented spontaneous orbito-palpebral emphysema after a blowing effort.

We report the case of a 35-year-old female patient, without any notable pathological history, who presented to the emergency room for an acute palpebral swelling of the left eye following a blowing effort

On examination, there was no medical history of a facial trauma. The patient reported that the appearance of the palpebral swelling was sudden after a blowing effort and that the swelling increased after each blowing. The clinical examination revealed a preserved visual acuity, a left upper palpebral oedema. With characteristic periorbital gas crepitation on palpation suggesting subcutaneous emphysema (figure1). And no clinical evidence of facial trauma. The patient didn't present any oculomotricity disorder. Biomicroscopy examination was normal. The examination of the other eye was unremarkable. Orbital CT scans confirmed the presence of orbito-palpebral emphysema of the left orbit (figure 2).

The treatment consisted of prophylactic antibiotic therapy, and the patient was advised not to blow her nose and to avoid any action that could lead to an increase in the pressure of the upper aerodigestive tract. The evolution was marked by the regression of the emphysema within 72h (figure3).

### II. Discussion

Orbital emphysema, often traumatic, reflects the passage of air into the orbit secondary to a communication between the orbit and the outside air, through a periorbital sinus. [1].

However, it can occur without initial trauma in rare cases, as in the case of our patient is the spontaneous orbital emphysema: following a violent nose blowing, [2]. The fracture of the inner wall of the orbit, specifically the Papyraceous blade is the most common site of fractures. On clinical examination, the pathognomonic sign is the characteristic gas crepitation and palpebral oedema [1,2,3].

Orbital emphysema is often benign and transient, resolving spontaneously within a variable time period [4]. But sometimes, it can lead to the optic nerve damage or central retinal artery occlusion. [3] CT scans of the orbit and facial massifs should be performed urgently to staging the emphysema and guide the therapeutic management. [5]

Hunts et al. [5] classified orbital emphysema into 4 stages based on symptomatology:

- Stage 1: is subclinical.
- Stage 2: exophthalmos, without visual impairment or damage to ophthalmic structures.
- Stage 3: exophthalmos, ischaemic neuropathy of the optic nerve
- Stage 4: central retinal artery blockage with exophthalmos and ocular hypertonia.

The common management of all stages consists of [6]:

- Prophylactic antibiotic therapy,
- Avoidance of upper airway hyperpressure

And the management of stages 3 and 4 is surgical[7][8].

### III. Conclusion:

Pneumorbis rarely spontaneous can sometimes be severe, putting at risk the visual prognosis and necessitating an emergenc

**Figure:**

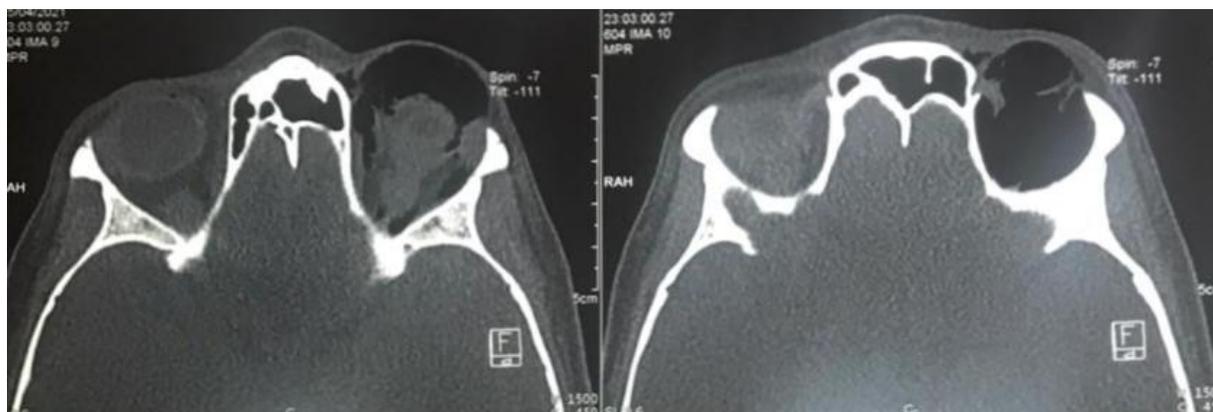
**figure 1:**left palpebral emphysema.

**figure 2**Orbital CT scan showing orbital emphysema

**figure 3:**Evolution after 72 hours: complete regression of the palpebral emphysema.



**Figure 1:**left palpebral emphysema.



**Figure 2**Orbital CT scan showing orbital emphysema



**Figure 3:** Evolution after 72 hours: complete regression of the palpebral emphysema.

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**Conflict of interest:**The author declares that there is no conflict of interest.

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