

The Thin Border between Life and Death

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We aimed to represent the case of a gunshot injury which was so close to the center that it could have affected the vital functions. Here you will find the imaging studies regarding this case.

A 17-year-old male patient presented to the emergency department with the claim of a gunshot injury. It was observed that the patient was conscious, cooperative, and oriented. During examination, a defect, consistent with a 5 × 5 mm bullet inlet, was seen in the left zygomatic region as an extracranial finding. Minimal tenderness was elicited with palpation on left zygomatic region and his Glasgow coma score was 15/15. His pupils were isocoric, light reflex was bilaterally positive, eye movements and vision were normal, diplopia was not present, and otorrhea and rhinorea were absent. Cranial nerves and motor function examinations were intact. When the patient was admitted to the hospital, his vital signs were as follows: blood pressure, 100/60; pulse, 80/min; inspiration rate, 22/min; temperature, 26.6°C; and oxygen saturation, 97%. Laboratory revealed no significant pathological findings.

Cranial and maxillofacial computed tomography revealed that the bullet inlet was located anteriorly in the left maxillary sinus, the bullet was located in the left suboccipital condyle, and the lateral wall was destroyed (Figure 1, 2a, b).

The patient was referred to the neurology clinic. His neurological examination revealed no sign of any deficit. Radiological imaging revealed that the bullet was located in a place which could not be easily reached with surgical instruments; therefore, a conservative approach was thought to be suitable for this case (Figure 3a-c, 4). Surgery for a gunshot head injury is intended to achieve of revitalized in the entrance and exit wounds, evacuation of all significant mass lesions, hemostasis, and meticulous dural and scalp closure (1). The indication for surgery to remove a bullet is controversial because presence of retained bullets or bone fragments do not increase intracranial infection rate and removal of the same to prevent infection is unnecessary (1, 2). However, the common complications of retained intracranial foreign bodies are abscess formation, cerebrospinal fluid fistulas, post-traumatic epilepsy, hematomas, and infection (3). The patient was observed for 24 h in our emergency clinic and then dis-

charged. He was instructed to come back for follow-up visits for 3 months. During the follow-up visits, no pathology was observed.

Results

In our opinion, it would be wise to adopt a good-quality and extended radiological approach in order to determine the therapeutic intervention and in such cases, to decide if the damaged area is difficult to reach with surgical instruments and therefore to follow a conservative treatment.

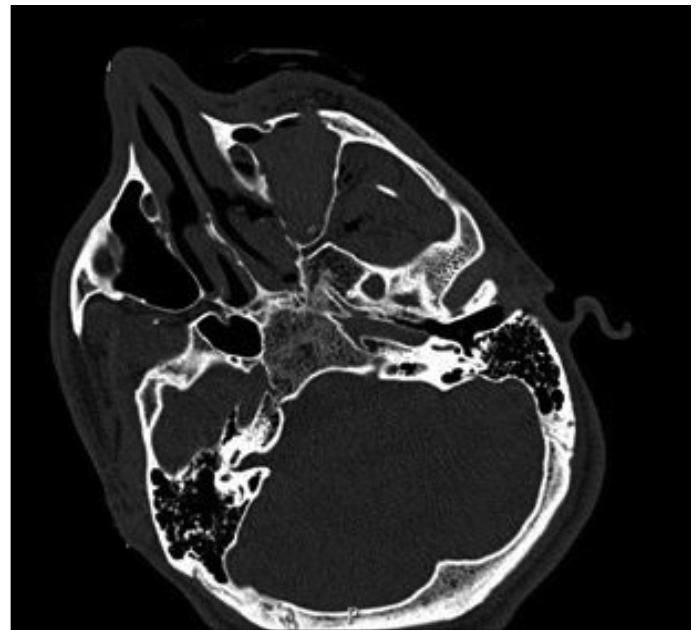


Figure 1. Left maxillary sinus, anterior wall; loss of integrity in the bone structures located laterally and close to the zygomatic process; increased subcutaneous density and presence of air bubbles. Hyperdense areas of hematoma in the left maxillary sinus

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Received: 28.01.2015 **Accepted:** 05.03.2015 **Available Online Date:** 12.06.2015

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DOI: 10.5152/jaem.2015.94834



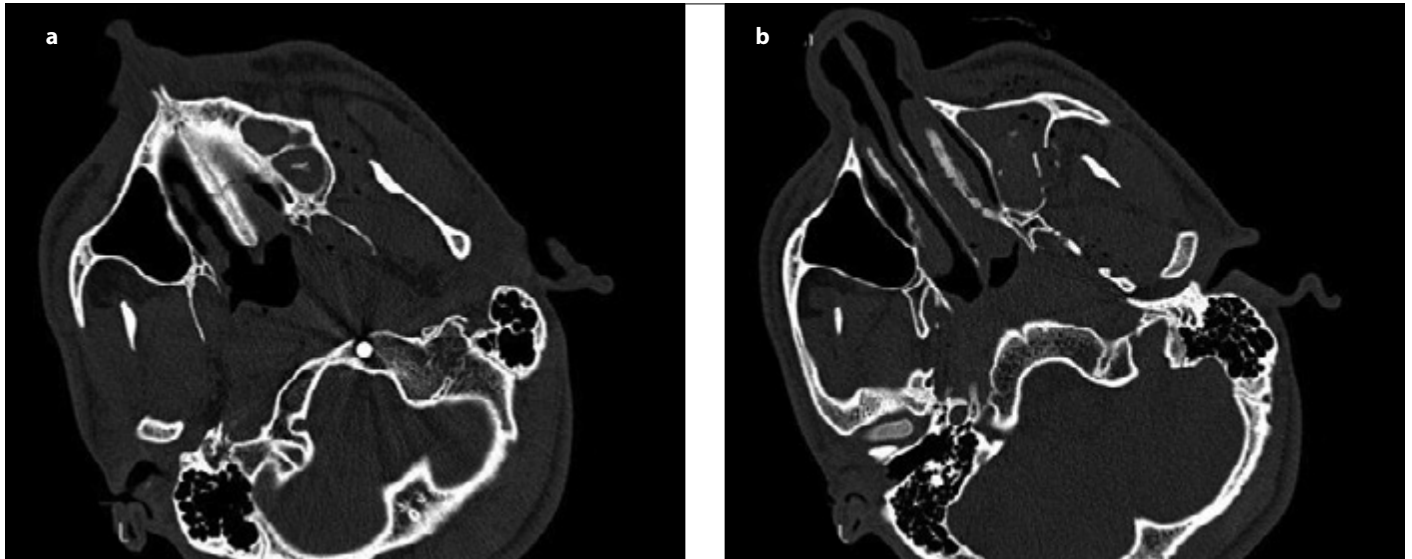


Figure 2. a, b. Axial and coronal sections, loss of bone structure integrity and millimetric free osseous fragments surrounding it, located in the left maxillary sinus, on the lateral wall

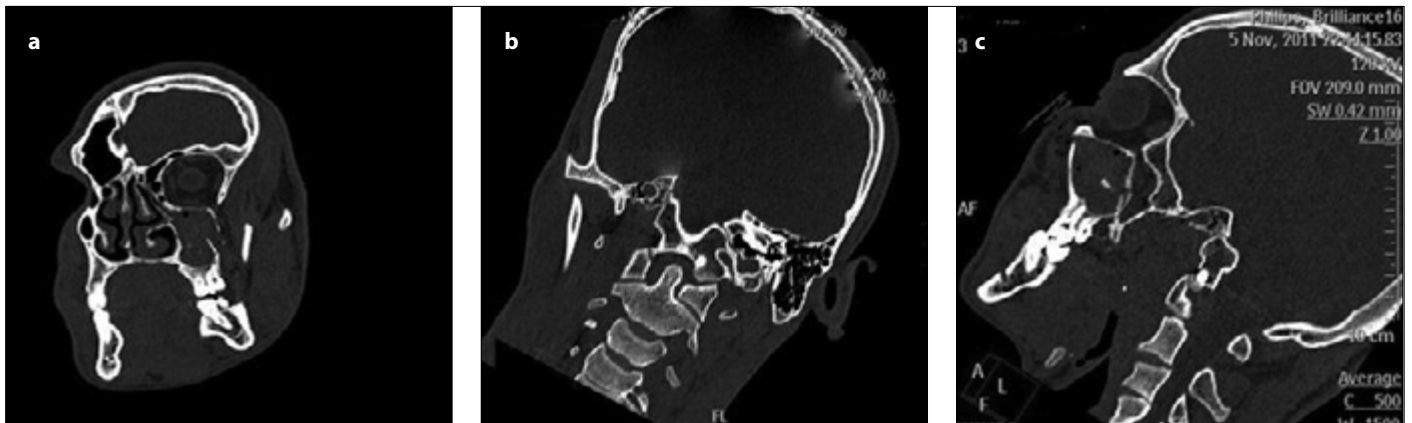


Figure 3. a-c. Coronal, axial, and sagittal sections; metallic image of the bullet located in the left occipital condyle

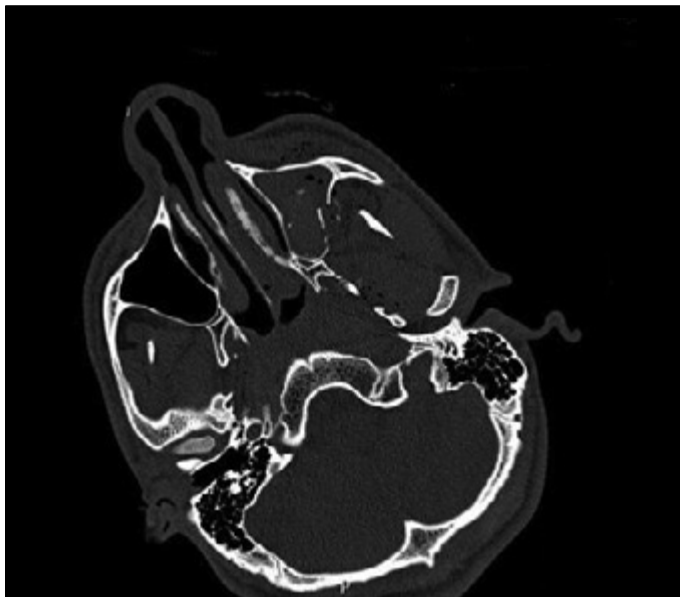


Figure 4. Hyperdensity and free air bubbles located between the left occipital condyle and the lateral wall of the left maxillary sinus

Informed Consent: Verbal informed consent was obtained from patient who participated in this study.

Peer-review: Externally peer-reviewed.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

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