



Case Report

Presentation and management of traumatic occipital spur fracture

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ABSTRACT

Occipital spur is an abnormal bony outgrowth of the external occipital protuberance (EOP). We describe an interesting and previously unreported case of fracture of an occipital spur following trauma. Our 20-year-old male patient was treated in the emergency department (ED) and discharged home without complication. Neurosurgical consultation was obtained but is not requisite for these injuries. Greater awareness of this unique presentation may help to expedite future emergency department treatment.

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1. Introduction

Occipital spur is an abnormal bony outgrowth of the external occipital protuberance (EOP). It is described as a normal anatomic variant [1] and is more common in males [2]. We describe an interesting and uncommon case of fracture of an occipital spur following trauma.

2. Case report

A 20-year-old inebriated male presented to our emergency department (ED) after tripping on a curb and experiencing momentary loss of consciousness. His presentation Glasgow Coma Scale (GCS) was 14 and a 3.5 cm midline laceration of the occiput was noted. Computed tomography (CT) scan of the head revealed a fragment of an occipital spur that had fractured, with no apparent intracranial abnormality (Fig. 1A, B, C). In retrospect, the patient recalled having noticed a subcutaneous bony prominence since late teenage years with occasional discomfort. The wound was debrided and cleaned; a floating osseous fragment within the wound was identified and removed. Following thorough irrigation, the laceration was closed primarily, and the patient was discharged home.

3. Discussion

Occipital spurs, though largely asymptomatic, have been thought to cause significant local discomfort and pain on occasion [3,4] and in rare cases may require surgical drilling of the exuberant bone for relief [5]. The present case describes an unusual instance of fracture of the spur following direct impact. The patient presented with moderate risk for intracranial injury given his status of inebriation, and brief loss of consciousness, and was investigated with a CT of the head [6], which revealed the fractured spur fragment. This compound outer table fracture was treated with thorough irrigation of the wound, retrieval of the loose fragment, and primary closure. Since the fracture essentially involved the superficial outer table alone without any intracranial component, neurosurgical consultation is not mandatory. Avulsion of the spur from its base is a more complex scenario that could require neurosurgical evaluation and management. Awareness of this uncommon presentation can expedite ED care and management in a cost-effective manner.

Declarations of interest

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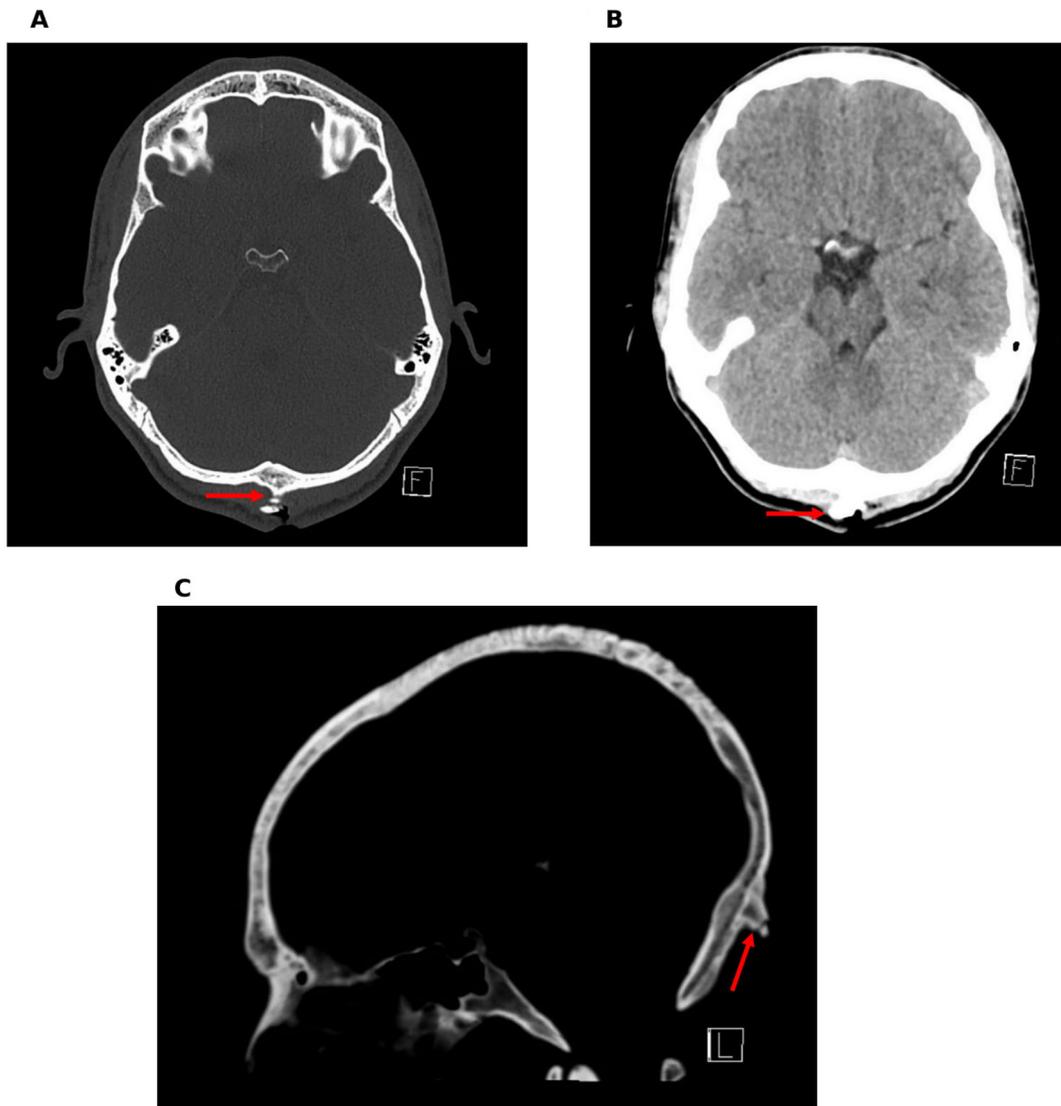


Fig. 1. Non-contrasted CT imaging: axial and sagittal CT images, windowed for bone and soft tissue, showing a fractured occipital spur with no intracranial abnormality. The injury extended through the galea but there was no direct communication between the site and the dura.

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