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A RETROSPECTIVE AUDIT DETERMINING THE PREVALENCE OF HEAD INJURIES ASSOCIATED WITH MAXILLOFACIAL TRAUMA

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ABSTRACT

Trauma in South Africa has been described as a "malignant epidemic" (Muckart DJ, 1991)[5]. Trauma is most acute in Sub-Saharan Africa, where deaths from trauma is higher than in any other region of the world where the risk of death from injury is greatest, especially for men aged 15-29 years (Murray CJL, in Bowley etal, 2002)[5].The recognition of concurrent life threatening injuries is critical, given that patients with facial fractures seldom die in the absence of airway problems, massive bleeding, aspiration of blood into the lungs and massive head injury[30].

There are several reports in the literature regarding multisystem trauma and facial fractures. Head injuries are commonly associated with facial fractures, and facial fractures can be markers for brain injury[16] .This study is aimed to identify the prevalence of head injuries associated with maxillofacial trauma in the Johannesburg General Hospital, Gauteng, South Africa.

The data was collected from 1st January 2003 to 30th June 2003. A total of 196 patients with maxillofacial injuries were treated and 176 were included in the study. The data was analyzed using SAS™ for Windows™. From the results it was found that of the 176 patients the majority were males comprising 88.07% of the study. Based on the GCS scores alone it was shown that 38.06% patients suffered head injuries. After reviewing patient records, it was found that of the whole sample only 31.25% of patients suffered true head injuries based on CT scan and neurosurgery findings. It was also shown that the most frequent mechanism of injury with head

injuries was gunshot wounds at 52.72% and the most common maxillofacial injury associated with head injury was panfacial fractures at 23.63%. In this study we also reviewed the outcome of the patients based on mortality rates. A total of 24 patients (13.63%) died from associated injuries. Of these patients 2 (1.13%) died from associated injuries due to polytrauma and 22 (12.5%) died due to severe head injury.

We found that severe maxillofacial injuries involving the midfacial region such as panfacial fractures, zygomatic complex fractures and Le Fort fractures are frequently seen in patients with significant head injury. This should alert trauma unit personnel during assessment of patients to the fact that if a patient presents with significant midfacial trauma, one might expect that an underlying head injury is present. It is important to make note, that of the associated injuries present with maxillofacial trauma, involvement of the central nervous system including concussion, is the most frequent[8].