Camel-related head and neck injuries: the biomechanics and severity

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Abstract

Background: There are no studies on the literature focusing on the biomechanics of camel-related head and neck (HN) injuries. We aimed to study the type of injury, mechanism, the relationship between the mechanism of trauma and type of injury of patients admitted with camel-related HN injuries.

Materials and methods: We retrospectively analyzed the prospectively collected data of all patients who were admitted to Al Ain Hospital with a camel-related HN injury from October 2001 to January 2010.

Results: 73 patients were studied; all were males with a median (range) age of 28 (5-89) years. Camel kick was the most common mechanism of injury in 45% patients followed by falling from a camel (22%). Facial fractures were significantly more common in patients who had been kicked by a camel. Severe head injuries were significantly more in patients who fell from a camel or who had a car collision with a camel. Compared with other mechanisms, camel bite was significantly responsible for neck soft tissue and cervical neurovascular injuries resulting in a significantly severe neck injuries ($P = 0.006$). Car collision with a camel was significantly associated with the lower cervical spine fractures ($P = 0.017$) and severe cervical spine injuries ($P = 0.004$). Two patients died (overall mortality 3%).

Conclusion: This study provides an insight into the complex biomechanics and severity of camel-related HN injuries. To decrease the incidence of HN camel-related injuries, it is crucially important to increase awareness that protective measures should be adopted in our community.



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