Certain upper jaw fractures associated with increased mortality and serious intercranial injury

Fractures in the middle of the face involving the upper jaw are called LeFort I fractures. Like all Le Fort fractures, Le Fort II fractures are rare. The Le Fort II fracture is usually caused by a severe blow to the upper jaw, and usually involves the lower portion of the orbital rim (eye socket).

A recent investigation into whether such complex midface fractures have a greater association with death and intracranial injury than simple midface fractures is discussed in *Le Fort II Fractures Are Associated With Death: A Comparison of Simple and Complex Midface Fractures*, an article appearing in the September 2013 issue of the *Journal of Oral and Maxillofacial Surgery*.

Authors from the University of Maryland and Johns Hopkins University, performed a study of patients with midface fractures due to blunt force who were treated at an urban trauma center from 1998 to 2010. They evaluated the survival and intracranial injury status of patients with less severe and complex midface fractures, including Le Fort, naso-orbitoethmoid, and/or zygomaticomaxillary fractures. Intracranial injury included bleeding into the brain and brainstem injury.

The findings indicated that patients with complex midface fractures were 57% more likely to die than those with more routine fractures in the midface area. Moreover, Le Fort II fractures alone were associated with a 94% increased risk of death, as opposed to Le Fort I and III fractures, which were not significantly associated with death.

Among patients presenting without neurologic impairment, those with Le Fort II and III fractures were more likely to have an underlying brain injury, even in the absence of changes in consciousness.

The authors strongly recommend that patients presenting with complex midface fractures, particularly Le Fort II fractures, be monitored with heightened vigilance and followed up closely during hospitalization.

Read the complete study findings at *J Oral Maxillofac Surg*. 2013; 71:1556-1562.
http://dx.doi.org/10.1016/j.joms.2013.04.007

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