

## A Case Study of Meningoencephalitis following Le Fort I Osteotomy

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**Abstract :** Introduction: Le Fort I Osteotomies, although are common procedures in Oral and Maxillofacial Surgery, carry a degree of risk of unfavourable propagation of the down-fracture of the maxilla. This may be the first reported case in the literature for meningoencephalitis to occur following a Le Fort I Osteotomy. Case: A 32-year-old female was brought into the Emergency Department four days after a Le Fort I Osteotomy, with a Glasgow Coma Scale (GCS) of 8 (E3V1M4). A Computed Tomography (CT) Head showed a skull base fracture at the right sphenoid sinus. Lumbar puncture was completed, and *Klebsiella oxytoca* was found in the Cerebrospinal Fluid (CSF). She was treated with Meropenem, and rapidly improved thereafter. CSF rhinorrhoea was identified when she was extubated, which was successfully managed via a continuous lumbar drain. She was discharged on day 14 without any neurological deficits. Conclusion: The most likely aspect of the Le Fort I Osteotomy to obtain a skull base fracture is during the pterygomaxillary disjunction. Care should always be taken to avoid significant risks of skull base fractures, CSF rhinorrhoea, meningitis and encephalitis.

**Keywords :** meningitis, orthognathic surgery, post-operative complication, skull base, rhinorrhea

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