Panfacial fractures

Panfacial fractures

Combined fractures involving multiple levels such as the mandible, maxilla, zygoma, orbit or frontal bone are described as panfacial fractures. These are some of the most complex of facial injuries and indicate that a significant amount of force are often associated with severe intracranial, spinal or other organ injuries. Reformatted 3D CT imaging is helpful in demonstrating the full extent and the nature of these fractures (Figure 31.18). Fractures are treated with ORIF once the patient has been stabilised from other significant injuries, and the soft- tissue swelling has su ffi ciently resolved, usually at a week from injury . The key to panfacial fracture management is in the ‘sequencing’ of repair , with individual fractures fixed in a similar way to those already described above. The repair of multiple fractures can be di ffi cult because there may be little normal anatomy or intact bony buttresses to act as a guide. Most surgeons experienced in managing this type of injury would tailor the sequence to the particular fracture pattern, optimising the use of normal or near-normal anatomy as a guide. One of the most common sequencing techniques is a ‘top- down’ and ‘outside-in’ approach. This includes first repairing the frontal bone and zygomatic arch fractures follow orbital rim, nasoethmoidal and mandible fractures. The Le Fort I level maxillary and orbital floor fractures are repaired last. A tracheostomy is often placed because of di ffi culty with nasal endotracheal intubation and the need to check occlu sion during fracture repair, which means oral intubation is not desirable. Alternatively , a submental intubation technique may be one that allows for the occlusion to be checked during frac ture repair. Summary box 31.11 Panfacial fractures /uni25CF /uni25CF

Reformatted 3D CT imaging is very useful in demonstrating the extent and nature of fractures Panfacial fracture management requires a ‘sequencing’ approach, which allows for the fractures to be treated in a systematic way

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