

TRAUMA TO THE NOSE AND PARANASAL SINUSES

Fracture of the nasal bones

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Blunt injury to the nose may fracture the nasal bones (Figure 51.39). The fracture line can extend into the lacrimal bone and tear the anterior ethmoidal artery , producing catastrophic haemorrhage. This may be delayed, occurring only as the soft-tissue swelling subsides, reducing the tamponade effect on the torn vessel. Violent trauma to the frontal area of the nose can result in a fracture of the frontal and ethmoid sinuses with potential extension into the anterior cranial fossa. Dural tear brain injuries, either open or closed, are then at risk from sino nasal ascending infection, which may progress to meningitis or brain abscess. CSF rhinorrhoea is a certain sign of a dural tear. CSF rhinorrhoea can be confirmed by collecting a sample of the fluid and sending for β - transferrin assay . A bony defect in the anterior skull base following trauma can be identified on high-resolution CT . The CSF leak will often settle with conservative management but, if persistent, it can be repaired endoscopically . Management of fractured nasal bones Fractured nasal bones are normally accompanied by extensive overlying soft-tissue swelling and bruising, which may hinder the assessment of any underlying bony deformity . Reviewing - after 4-5 days when the soft-tissue swelling has diminished will allow a better assessment of any deformity . If there is a significant degree of nasal deformity , this can be corrected by manipulation of the nasal bones under local or general anaesthesia. This should be carried out within 3 weeks of the injury while the bony fragments are still mobile. After this period, if there is significant cosmetic or functional issues, a septorhinoplasty can be performed at least 6 months following the injury .

Figure 51.39 Fracture of the nasal bones with displacement of the bony nasal complex to the right side.

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