Nasal fractures

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1 Nasal bone radiographs should not be ordered in the evaluation of nasal bone fractures

Radiography has low sensitivity (64.9% [standard deviation 4.8%]) and specificity (67.8% [standard deviation 4.7%]) in identifying nasal fractures in both adult and pediatric populations and does not change clinical management.[1] Physical examination is the gold standard for the diagnosis of nasal fractures.[2]

2 Computed tomography (CT) should not be used in the workup of isolated nasal trauma

If multiple facial bone fractures are suspected, or there is a high velocity mechanism of trauma, CT should be considered to guide management.[3] There is no role for CT in isolated nasal trauma.[4]

3 The decision to perform reduction of a nasal fracture is based on clinical assessment

Physical examination should include evaluation for nasal deformity or malposition, with palpation for local nasal tenderness with step-off deformity or crepitus.[4] Periorbital swelling or ecchymoses, epistaxis or local nasal tenderness may be seen. The decision to perform nasal reduction depends on degree of external deformity, breathing difficulty and patient preference, none of which are assessed by radiography.[4]

4 Assessment for associated septal hematoma is essential

The reported rate of septal hematomas after nasal injury is 1% and may be higher in children.[5] If identified, they should be incised and drained immediately. Without treatment, hematomas can lead to necrosis of the underlying cartilage, causing saddle nose deformity.[4] Untreated septal hematomas can become infected and spread to the sinuses or intracranially.[4]

5 Nasal fracture reduction should ideally occur within 2 weeks of injury

Timely referral for consideration of nasal fracture reduction is paramount. If swelling and edema of the nose make examination difficult, patients should be reassessed within 5–10 days.[4] Reduction should ideally occur within 2 weeks before nasal bones fixate. Untreated nasal fractures can lead to nasal obstruction and chronic rhinosinusitis.[3]

References

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