

Magnetic resonance imaging

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The value of immediate MRI in trauma is relatively limited and is largely confined to the imaging of spinal injuries (Figure 8.35). Access to urgent MRI is not widely available, and there are major practical problems in imaging patients who require ven - tilation or monitoring. MRI is therefore only practical in stable patients. All monitoring equipment must be MRI compatible, and ventilation support should be undertaken by sta ff skilled and experienced in these techniques as applied to the MRI environment. MRI may be used to diagnose injuries of the spinal cor d and associated perispinal haematomas in patients with neurological signs or symptoms. MRI can supplement CT in spinal injuries by imaging soft-tissue injuries to the longitudi - nal and interspinous ligaments. MRI is mandatory in patients in whom there is facetal dislocation if surgical reduction is being considered, to minimise the risk of displacing soft-tissue or disc material into the spinal canal during r eduction proce - dures. Subtle fractures may be di ffi cult to identify , particularly if they are old, but an acute injury is normally identified b y the surrounding oedema. Bony abnormalities should be reviewed using CT as fracture lines are hard to identify with MRI and unstable injuries may be overlooked. In the less acute setting, MRI may also be used to assess di ff use axonal injuries, with an accuracy exceeding CT . Magnetic resonance imaging

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spinal injuries by imaging soft-tissue injuries to the longitudinal and interspinous ligaments. MRI is mandatory in patients in whom there is facet dislocation if surgical reduction is being considered, to minimise the risk of displacing soft-tissue or disc material into the spinal canal during reduction procedures. Subtle fractures may be difficult to identify, particularly if they are old, but an acute injury is normally identified by the surrounding oedema. Bony abnormalities should be reviewed using CT as fracture lines are hard to identify with MRI and unstable injuries may be overlooked. In the less acute setting, MRI may also be used to assess diffuse axonal injuries, with an accuracy exceeding CT.

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