Ultrasound

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Ultrasound has an evolving role in the assessment of acutely traumatised patients. The main current roles of ultra sound include the assessment of intraperitoneal fluid and trauma [FAST]), the evaluation of pneumothoraces in supine patients and in guiding intervention. FAST ultrasound is a limited examination directed to look f or intraperitoneal fluid or pericardial injury as a marker of underlying injury . T his avoids the invasiveness of diagnostic peritoneal lavage. In the presence of free intraperitoneal fluid and an unstable patient, the ultrasound allows the trauma sur - geon to explore the abdomen as a cause of blood loss. In the presence of fluid and a haemodynamically stable individual, further assessment by way of CT can be performed. Howe ver, it is important to realise that ultrasound has limitations in the identification of free fluid. This includes obscuration of fluid by bowel gas or extensive surgical emphysema. More organ - ised haematoma may be more di ffi cult to visualise. It must also be emphasised that the principal role of ultrasound is not to identify the primary solid organ injury , although this may be visualised. Occasionally , a second ultrasound scan may show free fluid in the presence of an initially nega tive FAST scan. The detection of a pneumothorax on a supine radiograph can be very di ffi cult. Ultrasound examination may be used to identify a radiographically occult pneumothorax. With a high-resolution linear probe, the pleura can be visualised as an ec hogenic stripe, and its motion with respiration can also be assessed. In the presence of a pneumothorax, the sliding motion of the pleura is lost. Ultrasound may also be used to detect a haemothorax or haemopericardium. Finally , ultrasound may be of value in guiding the place - ment of an intravascular line by direct visualisation of the ves - sels. This can be especially advantageous in shocked patients. Ultrasound

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