POCUS IN BLUNT CHEST INJURY

Nottingham University Hospitals NHS
NHS Trust

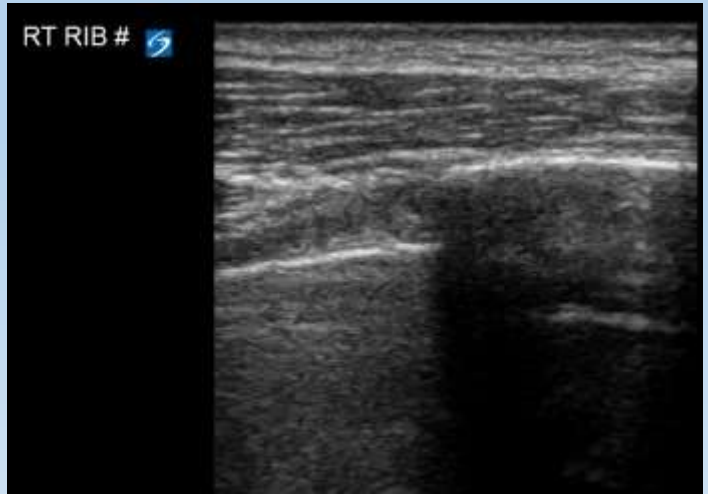
Dr Himanshu Gul Mirani, Specialty Doctor, A&E, QMC

Case Presentation: A 74 yr old patient came with blunt injury of right chest. There were no clinical features s/o flail segment or pneumothorax. CXR was nil acute.

Management and Outcome: USS of rib at the site of maximal tenderness demonstrated cortical breech and thus confirmed rib fracture which was not evident on CXR. Identification of rib fracture helped to give the patient a definitive diagnosis and counselling on the possible complications, rather than it being a 'presumed diagnosis'.

Several studies show improved identification of fractures with use of POCUS. Its quick and easy test that can be done at bed side, with better yield than CXR for fracture as well as its complications like pneumothorax and lung contusions.

Rib fracture as seen on POCUS image with fracture suggested by the discontinuous / step in the rib cortex. Image acquired on the site of maximal clinical tenderness.



Key learning point: Rib fractures are the most common blunt chest injury. Many patients in minors area of ED who come with minor blunt chest injury have a CXR to look for features of pneumothorax/lung contusions. CXR does is not good at picking up rib fractures and there can be implications especially in older people with respect to missed rib fractures in terms of required analgesia and complications of chest infection and atelectasis.