POCUS Of Sternoclavicular Joint To Assess Dislocation

Author: Maria Pia Gauci (ENP), Dr. Himanshu Gul Mirani (ED Consultant)

NHS Nottingham University Hospitals NHS Trust

Background

Posterior dislocation of the sternoclavicular joint is a life-threatening emergency since it can be associated with injuries to several important mediastinal structures like the subclavian vessels, trachea, and oesophagus (1). It warrants an emergency reduction.

Case Study

A 56-year-old female presented to the emergency department with complaints of painful swelling and bruising around the left sternoclavicular joint following an injury while playing rugby.
- There was localised fullness obliterating part of supraclavicular fossa compared to the right side.
- On presentation she was haemodynamically stable with no airway compromise, no circulatory or neurological deficit.
- Speech clear and swallow normal.
- Neck full range of movement

Investigation

Xray of the chest was suspicious for asymmetric alignment of the left SCJ, although the film looked slightly rotated.
POCUS examination revealed normal alignment of the left SCJ. It also confirmed a hematoma in the muscle belly of the sternocleidomastoid muscle on the left compared to the right side.
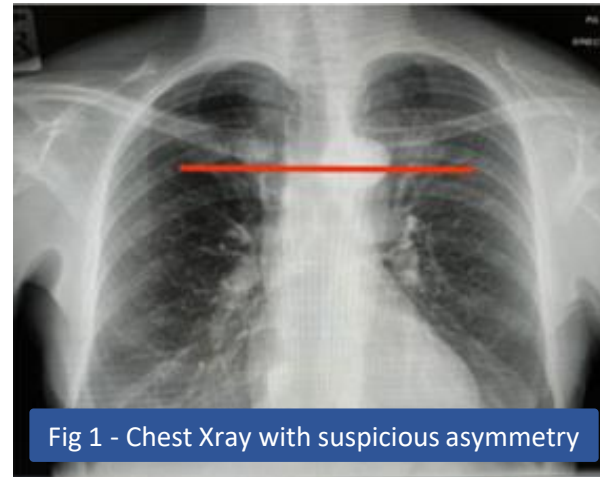

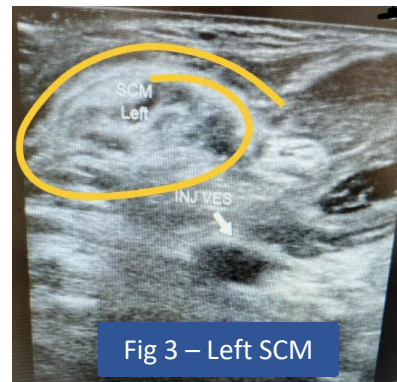Fig 1 - Chest Xray with suspicious asymmetry

Fig 2 – Left SCJ

Fig 3 – Left SCM

Fig 4 – Right SCM

Outcome

Case was discussed with radiology department and given her reassuring clinical finding and POCUS assessment, she was discharged with safety netting advise.

Learning Points

X-rays, like the serendipity views can be difficult to interpret, particularly due to rotation and overlapping structures.
POCUS has been documented to be a very useful modality that helps to rapidly screen for this injury (2).
In this case POCUS also picked up on an alternative diagnosis of sternocleidomastoid hematoma. It's a very rare condition to occur post blunt trauma. It is usually managed conservatively unless there are complications from its expansion.

References

PMID: 27307903

PMID: 28087089