

## Introduction

Sternal injuries occur in only 0.05% of all traumas however are still a possibility in injuries of high impact. Patients with chest injury require one to remember the thoracic cage as being an interconnected cage with unique possible injuries. This report discusses a patient who suffered a manubriosternal dislocation and unique points in management.

## Case Report

### History of present illness

A 26-year-old patient presented to the emergency department for chest pain after restrained MVC. The pain is made worse with deep inspiration and manual pressure.

**Past Medical History:** None

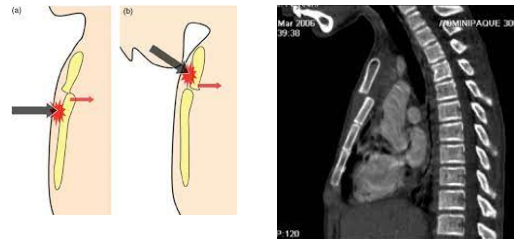
**Past Surgical History:** None

**Allergies:** NKDA

Physical revealed clear breath sounds bilaterally but reproducible chest pain over the sternum. She had no visible chest/ thoracic abnormalities on visualization.

## Discussion

Manubriosternal dislocations occur by way of two mechanisms in trauma. Type 1 dislocations occur usually as result of direct blow to the chest where the sternal body is displaced posteriorly in relation to the manubrium. Type 2 dislocations occur usually as a result of direct blow to the manubrium or hyperflexion of the upper thoracic spine and as a result the manubrium is displaced posteriorly in relation to the sternal body.



Aside from possible thoracolumbar or cervical spine fracture by way of hyperflexion in Type 2 dislocation injuries...Patient's may also suffer from arrhythmia as they are capable of happening 18% of the time in chest injury. Sternal injuries can be easily visualized in the standard Emergency Department by way of lateral chest radiographs.

## Conclusion

Sternal injuries can be visualized on lateral chest radiographs and additionally require further evaluation of other spinal injuries, cardiac contusions, cardiac arrhythmias, and possible underlying vascular injury which all require further diagnostic evaluation. If all other diagnostic tests are negative, conservative management with discharge surgical follow-up is a standard of care. This standard of care is the general approach to treatment however does carry a risk of malunion, chronic pain, and has high rates of continued or further dislocation. Decisions regarding possible cardiothoracic surgery can be postponed and held at a later date from initial presentation but can also be addressed on immediate presentation if mechanism of injury or secondary injuries are severe.

## References

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