# Acute Clavicular Fracture of an 18 yo Collegiate Wrestler Treated Nonoperatively without Signs of Healing: A Case Study Maring A. K.: Springfield College Athletic Training Program **Springfield, Massachusetts**

- increased risk of nonunion

### **Case Presentation**

- 18 year old collegiate male wrestler was slammed on the tip of the shoulder during drill in practice
- Initial examination determined obvious deformity, brachial and radial pulse was not compromised
- Initial X-ray confirmed mid-shaft clavicle fracture, placed in sling.
- Re-evaluation by a second orthopedist observed no sign of calcification, increased separation at acromioclavicular joint, placed in posture brace
- Follow up after the second opinion, determined beginning signs calcification, negating need for surgical intervention.
- Once calcification presented, athlete was cleared for cardiovascular training without contact.
- Patient currently presents with a raised deformity at the left mid-shaft region

### References

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### **Background Information**

• Clavicle fractures account for approximately 2.6% of total body fractures. • Approximately, 69–81% of fractures to the clavicle occur in the middle one-third. • 94% of cases the mechanism of injury to be direct trauma.

• Typically nonoperative treatment is chosen to avoid infection, hardware prominence, and a potential

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Figure 1: Initial X-ray on 1/6/20

# **Clinical Bottom Line**

• Conservative treatment may lead to significant deficits, whereas surgical management results in an earlier and more reliable return to full function with a low complication rate.

## **Diagnostic Imaging**

• The patient received multiple X-rays in the winter of 2020





Figure 3:

Figure 2: Second X-ray on 1/22/20

## Third X-ray on 2/24/20

## Conclusion

• Nonoperative treatment is recommended for fractures with a displacement and shortening of less than 2 centimeters.

### Interventions

 Initially placed in cloth sling • After second set of X-rays, placed in figure 8 posture brace. • Cryotherapy for pain



Figure 4: Figure 8 Posture Brace Retrived from https://bensmens.com/product/adjustableback-posture-corrector-clavicle-spine-backshoulder-lumbar-brace-support-preventsslouching/

