Supracondylar Humerus Fracture: Managing A Pink Pulseless Limb

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INTRODUCTION

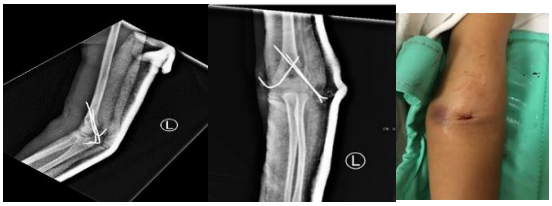
Supracondylar humerus fractures account for 17.9% of all fractures in children between the ages of 0 and 16 years[1]. Severely displaced fractures can associate with vascular insult where patients may present with a cold or a pink pulseless limb. Korompilias et al[2] also warned that an absent radial pulse recommended surgical exploration to restore vascular patency even in the presence of a viable pink hand after an attempt of closed reduction.

CASE SUMMARY

NNB is an 8-year-old girl who presented to our hospital with a complaint of left elbow pain after a fall. Noted that she had an open wound at the anterior elbow with absent radial and ulnar pulses with Anterior Interosseus Nerve palsy however limb was well perfused with a capillary refill time < 2 secs. Doppler ultrasound noted weak biphasic signals for both pulses. Pulse oximetry for all fingers noted oxygen saturation of 100%.

MANAGEMENT

Radiographs of the elbow noted that she sustained left supracondylar humerus fracture (Gartland IV). She was admitted and underwent Wound debridement and exploration and K-wiring of the left elbow. Intraoperatively noted that there was a pucker sign and anterior puncture wound over the cubital fossa measuring 1 x 0.5 cm in size. Exploration noted that the proximal fracture fragment of the humerus had penetrated through the brachialis muscle and brachial artery was tethered to the proximal fragment.



Post reduction and K-wiring of the supracondylar humerus fracture, noted distal pulses return. Post operatively, the patient recovered well and was discharged.

DISCUSSION

A review by White et al[3] advised against the dogma of watchful waiting in patients with a pink pulseless limb which historically has been the preferred approach. They argued that due to advancement of surgical repair techniques and diagnostic modalities available to the orthopaedic surgeon. Vascular exploration should be an option which must be taken to prevent complications.

CONCLUSION

Management for patients with a pink pulseless limb should undergo emergency reduction and fracture stabilization but vascular exploration should also be undertaken.

REFFERENCES

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