Pectoralis Major Tendon Bony Avulsion Injury in a 15 Year Old Boy: A Case Report

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I have no financial conflicts to disclose
Case

• A 15 year old boy was lifting heavy weights as a fly exercise at the gym and he fell a pop at his left shoulder area

• He was seen in Emergency Department on the day of injury

• His diagnosis was given as a muscle strain around the left shoulder and he was discharged to physiotherapy and verbal advice to return if any problems
Case

• He re-attended 13 days later with pain, ecchymosis, swelling to an area close to his left axilla

• He was referred to fracture clinic where he was seen 28 days after the initial injury by a non-shoulder Orthopaedic Surgeon who questioned the diagnosis and arranged for an MRI Scan
Case

- He was reviewed 56 days following the injury for discussion of the MRI Scan results which demonstrated a pectoralis major rupture at its distal insertion and he was referred on to a sports injuries surgeon.
Case

- He was then seen 63 days following the injury and clinical examination demonstrated abnormal appearance of the Pectoralis Major Muscle, worse on contraction (hip press test)
- He had weakness when testing the muscle
Case

- There was a palpable hard mass in the axilla which was thought to be a periosteal avulsion that had matured to bone over the time period.
Case

• Eight days later he subsequently underwent Open Reduction and Internal Fixation of his Pectoralis Major using 3x Tapes passed through 3x Unicortical Buttons

• At surgery the periosteal avulsion was confirmed and the mature bone excised
Case
Case

- He underwent successful rehabilitation and returned to sport 6 months following surgery.
Discussion

• While Pectoralis Major rupture is well recognised among the sporting population in adults we believe this case highlights the possibility in an adolescent

• With the growing incidence of teenagers attending gyms and weight training we suspect that such a diagnosis will become more common and therefore should be considered by all Orthopaedic Surgeons in a generalist Fracture Clinic
Discussion

• Such a delay in diagnosis and ultimately treatment would normally result in retraction of the tendon and a likely poorer outcome from injury.

• In this case that was fortunately avoided due to the periosteal avulsion and a good outcome was achieved.
Thank you

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