Paget Schroetter Syndrome In Athletes

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Scope Of The Syndrome

• 1-2 per 100,000 people/year
• Mean age of presentation early 30’s
• 2:1 male to female
• More common in right hand dominant individuals
• 60%-80% history vigorous exercise
• 1 case in every 5 years per high level baseball club
• Major referral center will see approx. 3 athletes/year.

Scope Of The Disease

• Types of athletes affected: Vigorous upper extremity athlete, overhead athlete/laborers

What does the athlete want to know

• What is Paget Schroetter?
• What’s the treatment?
• Does it have to be treated?
• Functionality/Disability concerns of the syndrome and/or treatment?
• How long until I return to playing?

U of Miami Experience

• 15' 4 years w Paget-Schroetter
• Diagnosis made using duplex (+ duplex with high clinical suspicion = venogram)
• All treated with lysis/immediate scalenectomy/rib resection.
• Venoplasty for residual stenosis
Soccer player with acute massive arm swelling.
Immediate anticoagulation and TPA thrombolysis upon diagnosis

Immediate post lysis supraclavicular scalenectomy and rib resection
Residual lesion treated with balloon venoplasty

Post venoplasty
Protocol developed from trends as Paget Schroetter treatment has evolved.
A lot of data but no level 1 evidence

Lessons from landmark studies

Adjunctive measures to MIW achieve better patency and long term results
Balloon venoplasty
Patch venoplasty
Venous bypass

Functionality

Less than 2 weeks
Late > 2 weeks

Taylor et al. retrospective review
Evaluated by Disability of the arm, shoulder and hand (DASH) score
Significant improvement in scores in all except conservative management group.
Functionality

How long until return to play

- Melby et al
- Treated with thrombolysis, surgical decompression and +/- venous reconstruction
- All returned to competitive activity median 3-5 months

32 Competitive Athletes

Post-op care

- What about anticoagulation: 3 months?
- Sparse data. Taylor et al and Urschel and Patel has shown no difference in re-thrombosis with anticoagulation vs antiplatelet vs no anticoagulation.
- Treatment time with anticoagulation overlaps with average recovery time
- Activity Passive range of motion early in post-op period
- Strengthening at 1 month
- Graduated sports related activity over 2 months

Conclusion

- Current protocols can be safely applied to the athlete with Paget Shroetter with minimum complications and with expected return to activity in most individuals.