

CASE REPORT

SCREENING FOR REFERRAL BY A SPORTS PHYSICAL THERAPIST REVEALS AN EFFORT THROMBOSIS IN A COLLEGIATE PITCHER: A CASE REPORT

William R. VanWye, PT, DPT, CCS¹

Jase Pinerola, PT, DPT, ECS, SCS, LAT²

Karen Craig Ogle, PT, DPT³

Harvey W. Wallmann, PT, DSc, SCS, ATC, CSCS¹

ABSTRACT

Background and Purpose: Screening for referral, regardless of setting, is the responsibility of all physical therapists. A serious condition that sports physical therapists may encounter is upper extremity (UE) deep venous thrombosis (DVT), which can result in the important and sometimes fatal complication of pulmonary embolism.

Case Description: A 22 year-old male right-hand dominant collegiate pitcher was referred for physical therapist evaluation and treatment secondary to acute right UE pain and swelling. The athlete described the onset of these symptoms as insidious, denying any form of trauma. The athlete had undergone testing, which included UE Doppler ultrasound of the bilateral UE veins and a computed tomography (CT) scan of the chest without contrast; both of which were deemed negative. He was subsequently diagnosed with thoracic outlet syndrome and referred to the team physical therapist. After examination, the physical therapist hypothesized the athlete was presenting with a possible vascular compromise. Findings leading to this decision were: 1) insidious onset, 2) inability to account for the athlete's pain with ROM, strength, neurological, or provocation testing, 3) significant swelling of the right UE (arm and forearm), 4) increased discomfort with palpation in the supraclavicular region, and 5) history of strenuous UE use.

Outcomes: The athlete was referred back to the orthopedist. A venogram CT was ordered, which revealed an axillary and subclavian DVT and the presence of venous collaterals. The athlete was referred to a vascular surgeon who performed a right first rib removal. The athlete was able to complete post-operative rehabilitation and successfully return to competitive throwing the following spring.

Discussion: The delay in the initial diagnosis may have been due to the vague symptomology associated with venous complications and negative findings upon initial diagnostic testing.

Conclusion: This case report highlights the importance of subjective and physical examination findings and use of diagnostic testing for timely identification of an UE DVT. Ultimately, the physical therapist in this case was able to screen for referral, which led to the correct diagnosis and allowed the athlete to safely and successfully return to sport. Physical therapists should include effort thrombosis in their upper quarter differential diagnosis list for athletes who perform strenuous UE activity.

Level of evidence: 4

Keywords: Baseball, deep venous thrombosis, effort thrombosis, Paget-Schroetter syndrome, upper extremity thrombosis

CORRESPONDING AUTHOR

William R. VanWye, PT, DPT, ACSM-RCEP, CSCS
Doctor of Physical Therapy Program
Western Kentucky University
Medical Center Health Complex,
3318 Bowling Green, KY 42101
Work: 270-745-4925
E-mail: ray.vanwye@wku.edu

¹ Western Kentucky University, Bowling Green, KY, USA

² Orthopedics Plus Physical Therapy, Bowling Green, KY, USA

³ Baptist Health, Lexington, KY, USA

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