

DESCRIPTIVE ABSTRACT:

RUTLAND, Marsha D., Karla M. ESPINOSA, Alyssa K. PEVEHOUSE, Sarah M. BROOKS, and Austin P. ALEXANDER. Department of Physical Therapy, Hardin-Simmons University, Abilene, TX, 79698, USA. Muscular Axillary Arch from Bilateral Latissimus Dorsi and its Clinical Implications.

INTRODUCTION. Background & Purpose: As Doctor of Physical Therapy (DPT) students learn anatomy through dissection, additional medical information is gleaned. As the death certificate only reviews the cause of death, students often discover supplementary medical complications. This study evaluates the discovery of bilateral latissimus dorsi bands, also known as the “Muscular or Langer’s axillary arch”, impinging on the axillary brachial plexus and axillary artery. **RESOURCES.** A 66-year-old male embalmed cadaver (11-month postmortem) was dissected by first year DPT students over 8 months. Causes of death: Cardiovascular disease, Diabetes, Hypertension. Upon dissection of the anterior axillary region, bilateral muscular axillary arches were found from the latissimus dorsi bands compressing the brachial plexus in the axillary region. **DESCRIPTION.** DPT students researched axillary arch compression and speculated clinical implications of this anomaly. “Langer’s axillary arch,” an accessory muscle that normally crosses the axillary region from the latissimus dorsi and inserts into the pectoralis major, was discovered in 1795 and confirmed in 1894. The axillary arch has been reported in 7% of the general population and develops from the remainder of aponeurotic fascia(panniculus carnosus). Compression of neurovasculature can mimic thoracic outlet syndrome. Axillary arches may be mistaken for enlarged lymph nodes or a soft tissue tumor. Patients may report painful paresthesias of the arm, forearm, and hand and pain with shoulder abduction, external rotation, and elevation. Entrapment of the axillary artery may cause decreased blood flow to the upper extremities and cause axillary venous thrombosis or upper limb lymphedema. Lymphedema may cause swelling, feelings of tightness, limited range of motion, fibrosis, and recurring infections. The possibility of axillary venous thrombosis could occur with pain/tightness, blue coloration and sudden swelling in the upper limb. **SIGNIFICANCE.** Through critical thinking, students speculated symptoms anticipated with muscular axillary arch compression. Health care clinicians should recognize these underlying factors and refer for further medical consult.

References:

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