A rare muscle anomaly: The Supraclavicularis Proprius Muscle

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• The supraclavicularis proprius muscle is an abnormal muscle that may be found in the supraclavicularis fossa.

• During routine dissection of 78 cadavers (corresponding to 156 supraclavicular fossae), 10% formalin fixed, we found it in one adult Caucasian male cadaver. In our experience, the frequency of occurrence of the supraclavicularis proprius muscle would be \( 0.64\% \).

• This abnormal muscle consists of an anterior tendon inserting into the sternal aspect of the clavicle, lateral to the clavicular insertion of the sternocleidomastoideus muscle, and a posterior muscular portion entering the lateral aspect of the clavicle, medial to the acromioclavicular joint.
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• This anatomic variant was first described by Gruber (1865) [9], who called it the tensor fascia colli, on account of his finding that its contraction made tense the superficial layer of the cervical fascia that contained it. Since then a few authors have described this abnormal muscle: Macalister (1875) [19], Bardeleben (1876) [1], Knott (1880) [16], Dubar (1880) [6], Le Double (1897) [18], Laidlaw (1902) [17], Eisler (1912) [7], and Stadler (1930) [24]. However, none of them provided any information on its frequency of occurrence.

• With respect to its embryological origin, Mori [21] indicates that the trapezius and sternocleidomastoideus muscles develop from the branchial musculature, so it is presumed that the supraclavicularis proprius muscle evolved from the sternocleidomastoideus and trapezius muscles, of which it represents an abnormal persistence.

• The supraclavicular nerve passed underneath this abnormal muscle through the space it formed with the clavicle. When in action, the muscle may compress the supraclavicular nerve against the clavicle, which would be a potential cause of supraclavicular nerve entrapment syndrome, causing shoulder pain.
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