Implications of accessory pectoral muscles for ultrasound-guided thoracic wall blocks

Sir,

Ultrasound (US)-guided pectoral nerve blocks and serratus anterior (SA) plane (SAP) blocks have become very popular for managing post-operative pain after breast surgeries.[1,2] These are myofascial plane blocks wherein the local anaesthetic (LA) is deposited in the fascial planes between relevant muscles. Therefore, the knowledge of sonoanatomy is very important for a successful block. While performing SAP block, the latissimus dorsi (LD) and SA muscles are identified and LA is injected in the myofascial plane between these muscles at the level of 4th and 5th rib. The intercostobrachial nerve, lateral cutaneous branches of the intercostal nerves (T3–T9), long thoracic nerve and thoracodorsal nerve are blocked with a SAP block. These nerve blocks are essential to provide analgesia after axillary dissections. Accessory pectoral muscles are sometimes encountered during breast surgeries. Usually, the muscles are identified incidentally during axillary dissection.

We encountered an axillopectoral muscle or Langer's muscle or axillary arch during a left modified radical mastectomy [Figure 1]. This muscle is a muscular slip which extends between the LD and triceps brachii muscle.[3] The muscle can have variable origin and insertion. The axillopectoral muscle is a supernumerary muscle and is an important anatomic variation of the axilla. Miguel *et al*. observed three cases in which the muscle originated from LD and crossed over the axillary neurovascular bundle to insert deep to the insertion of pectoralis major (PM) or into the coracoid process.[4]

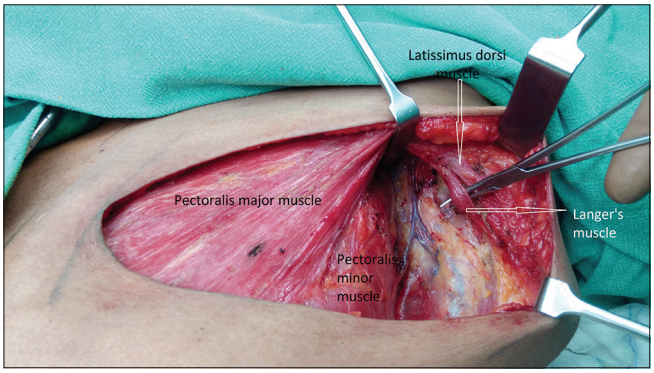

Figure 1: The image shows exposed surgical field during a left radical mastectomy. The accessory pectoral muscle is exposed and separated from the latissimus dorsi muscle

On tracing the muscle in this patient, we found it to be arising from LD muscle running anterior to axillary vein and getting inserted into PM muscle. A SAP block performed in this patient could have led to possible LA deposition between the accessory pectoral and SA muscle leading to block failure due to failure in identifying the accessory muscle. A pre-procedural scan is therefore very important before all interventions to identify each and every structure seen on the screen. Any structure isoechoic to LD muscle anterior to axillary vessels should raise a suspicion of the presence of an accessory pectoral muscle.

We had not taken consent for performing a thoracic wall block on this patient; therefore, an ultrasonography scan was not done. The absence of a US image in this letter is a deficiency. However, we scanned the opposite side post-operatively and found no abnormal sonoanatomy relevant to thoracic wall blocks on

that side. Once the surgery was completed, we took consent for writing and submitting case details including images from the patient for publication and circulating information.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Access this article online	
Quick response code	Website: www.ijaweb.org
	DOI: 10.4103/ija.IJA_260_18

How to cite this article: Nair AS, Vanzar P, Rayani BK. Implications of accessory pectoral muscles for ultrasound-guided thoracic wall blocks. Indian J Anaesth 2018;62:824-5.