

A RARE VARIATION IN ORIGIN AND COURSE OF SUPRASCAPULAR ARTERY

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ABSTRACT

Anamolous origin of the suprascapular artery from the first part of axillary artery arose on the right side of a male cadaver and about 1cm after its origin it pierced the lateral cord of brachial plexus and passed upwards backwards and below lateral one third of the clavicle. The suprascapular artery along with suprascapular nerve passed beneath the transverse scapular ligament supplied supraspinatus and infraspinatus. The suprascapular vein passed above the ligament. Variations concerning the origin and course of the suprascapular artery are numerous and are important because of its clinical implications.

Keywords: *Suprascapular Notch, Transverse Scapular Ligament, Subclavian Artery, Suprascapular Nerve.*

INTRODUCTION

The suprascapular artery is usually a branch of the thyrocervical trunk which in turn is a branch of the 1st part of subclavian artery. It passes transversely across the neck in front of the scalenus anterior muscle, the brachial plexus and the third part of the subclavian artery. In the neck it traverses along with suprascapular nerve on reaching the superior border of the scapula the suprascapular artery passes above the transverse scapular ligament, while the suprascapular nerve passes below the ligament. It supplies supraspinatus muscle and after passing through the spinoglenoidal notch supplies infraspinatus and takes part in scapular anastomosis.

CASES

During routine dissection of first MBBS students in department of anatomy of Bidar institute of medical sciences, Bidar, we observed a rare variation. The suprascapular artery on the right side of a male cadaver arose from first part of axillary artery and about 1cm after its origin it pierced the lateral cord of brachial plexus and passed upwards backwards and below lateral one third of the clavicle. The suprascapular artery along with suprascapular nerve passed beneath the transverse scapular ligament supplied supraspinatus. The suprascapular vein passed above the ligament. The suprascapular artery passed through spinoglenoidal notch supplied infraspinatus muscle and took part in scapular anastomosis. No variation in origin and course of suprascapular artery was found on left side.

DISCUSSION

In the present case the suprascapular artery arose from the right side of first part of axillary artery. The artery pierced the lateral cord of brachial plexus which is rare passed beneath the transverse scapular ligament along with suprascapular nerve.

The suprascapular artery provides blood supply to supraspinatus and infraspinatus these muscles form part of rotator cuff of shoulder joint.

The dorsal scapular anastomosis supplies dorsal scapular muscles and forms an alternate route of circulation between proximal subclavian and distal axillary artery (Williams *et al.*, 1995). Bilateral origin of suprascapular artery from first part of axillary artery was reported by lovesh shukla (Shukla *et al.*, 2012).

Origin of suprascapular artery from left side of first part of axillary artery and suprascapular artery and suprascapular nerve passing beneath the transverse scapular ligament was reported by Adibatti and Prassanna (2010).

Suprascapular artery arising from the third part of subclavian artery has been reported earlier in 22% of cases (Bean, 1905).

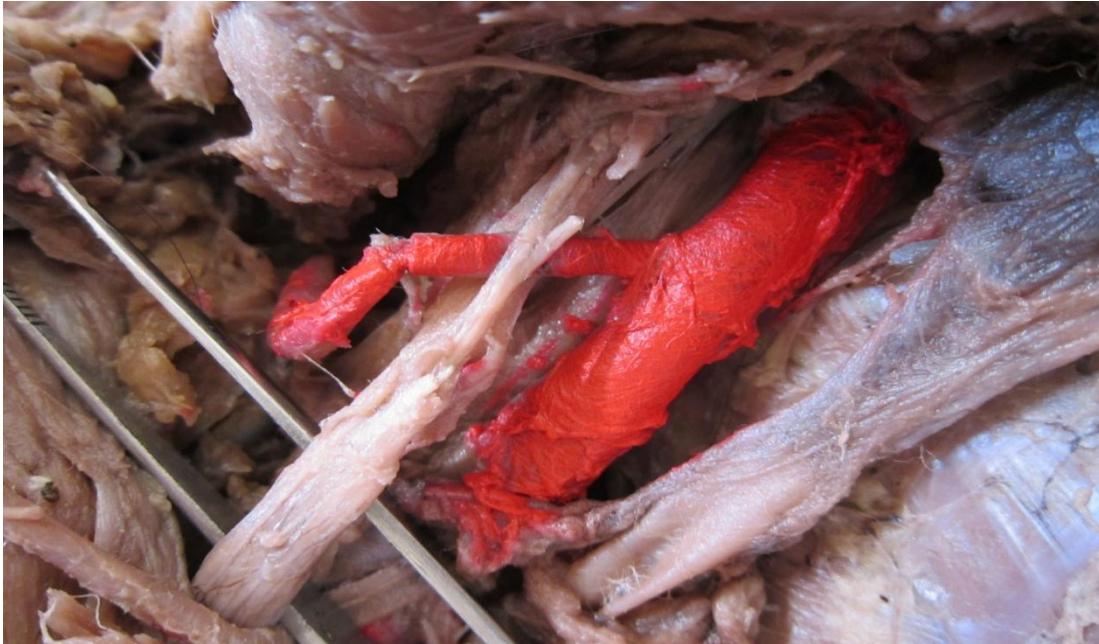


Figure 1: showing photograph of suprascapular artery arising from first part of axillary artery and piercing the lateral cord of brachial plexus

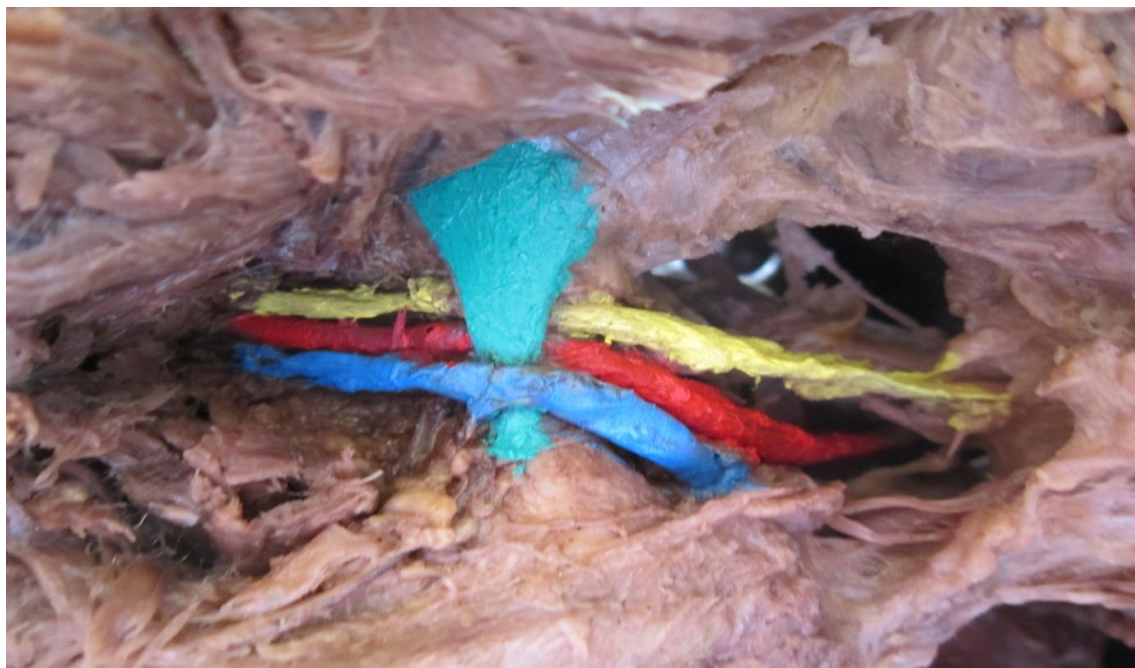


Figure 2: Showing photograph of suprascapular artery and nerve passing below the ligament and suprascapular vein passing above the ligament

CONCLUSION

Unusual origin of the suprascapular artery and piercing the lateral cord of brachial plexus and passing below the transverse scapular ligament can cause the compression of the artery. Hence understanding the origin and branching pattern of suprascapular artery would help in the management of diseases of cervical and shoulder region that could be due to vascular origin. Suprascapular artery supplies supraspinatus muscle which is a part of rotator cuff of shoulder joint. Hence knowledge of such variation would help in the management of diseases of cervical region. Such type of variation can also be the causative factor for suprascapular neuropathy causing compression of the suprascapular nerve by suprascapular artery beneath the transverse scapular ligament (Ringel *et al.*, 1990). The awareness of such variations is essential for planning surgical interventions around the scapula.

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