



Supra Scapular Ligament of a Left Scapula.---a Case Report.

KEYWORDS

Supra scapular notch, supra scapular ligament.

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ABSTRACT *Supra scapular foramen is a constant feature of scapula, which is situated along the superior border. presence of supra scapular ligament has been noted and reported by anatomists, radiologists and compression syndromes produced by them are widely discussed and treated by orthopedicians and sports medicine faculty. During routine teaching in anatomy module, a left sided scapula presented with SUPRA SCAPULAR LIGAMENT. the clinical importance is discussed below.*

INTRODUCTION : SUPRA SCAPULAR ligament is also known as *ligamentum transeversum scapulae superioris*. this ligament bridges ends of the supra scapular foramen. The supra scapular nerve, arises from the UPPER TRUNK OF BRACHIAL PLEXUS, being formed from the ventral rami of 5th and 6th cervical nerves, crosses the posterior triangle of neck, runs deep to trapezius muscle, along with supra scapular vessels.

Then passes deep to the supra scapular ligament, to supply Supra spinatus and Infra spinatus muscles; also twigs to Acromio clavicular and Glenohumeral joints.

In the presence of an ossified supra scapular ligament, the supra scapular nerve becomes susceptible for injury. (picture)

Method

- The scapula that presented with SUPRA SCAPULAR LIGAMENT was identified, photographed.
- The length of the ligament was measured,
- The vertical and horizontal diameters]
- Of the supra scapular foramen-----
- Whether it was band type or fan type--- fan type.
- Vertical diameter of foramen-----0.5cm
- Transverse diameter of foramen-----0.8cm
- Length of supra scapular ligament.-----1cm
- It was a left side scapula.
- They are tabulated as above.





Measurements were done using a standard scale.

DISCUSSION.

SUPRA SCAPULAR LIGAMENT-----has been reported in lower animals.

Supra scapular nerve supplying the supra and infra spinatus muscles was already pointed out. In the presence of a transverse or supra spinous ligament SSL)

,the nerve passes through the foramen and the artery passes above it.

Commonly the supra scapular nerve is susceptible for injury, one when it is passing through the notch, secondly, at the base of spinous process, ;but more so when there is a supra scapular ligament and it is ossified.

Resarchers have classified the shape of foramen as V shaped in 77%

S shaped in 23 %.

IN the scapula where the SSL was taken into study, the foramen was transversally oval.

Also the scapula in which present study was done ,the SSL was ossified. And the ligament was band typeReview of literature.

Studies done by various scholars in French and Italian

Scapulae showed presence of SSL IN 3 of 60 scapule by poiries and charpy in 1911

(1)

Kajava in 2 cases of 133 scapulae in 1924

Vallois in 13 out of 200 scapulae in 1937. gray in 1942 identified in 73 scapulae out of 1151 specimens.

GzegorzewskiA wasczykowski M etol reported ossified Supra scapular ligament.

Hadley etal in 1886 and Callahan etal in 1991 reported a series of cases of supra scapular nerve entrapment.

Cohen etal; in 1997, described 58 year old man and his son, who had calcification of supra scapular ligament.father had symptoms of pain right shoulder, after starting to use crutches.son developed right shoulder pain as a result of soft ball throwing.according to tubbs etal, in 2003 the important factor for supra scapular nerve entrapment is completely ossified supra scapular ligament, and all the specimens with ossified suprascapular ligament, showed signs of neural degeneration of supra scapular nerve.

Dr.khan reported a completely ossified supra scapular ligament in a isolated Indian dry scapula-in2006.

Partial ossification, complete ossification, multiple bands of supra scapular ligament were reported in 1998 by Ticker etal.

Extensive studies, done by Michael Polguy etal in 86 dry scapulae, 40 left and 46 right sided,

Also by dissecting 104 formalinised cadavers and measuring and photographing, and by radiological means to rule out any pathology, in 2006 showed that ossified supra scapular ligament was most common in males (6.4%--26/406) than in females(3.75%--12/320)and ossified supra scapular ligament was observed more on right side—53.2%(23/44).than the left side 47.7%-(32/44).they also reported that ossified band shaped type was more common than fan shaped type.4.7%-(4/86)

In the present isolated left scapula, where the ossified supra scapular ligament is reported,

The ligament was ossified, and it is of fan type.the measurements are as mentioned above.

Discussion.

(2)1.SSL more often in MEN than in women and in .Right sided SCAPULA.

2. OSSIFIED BAND TYPE OF SSL WAS MORE COMMON THAN FAN SHAPED TYPE,..

3. the ossified band type should be considered as a potential risk factor in the formation of SSNERVE ENTRAPMENT .

4. A study of supra scapular ligament was in fetuses has been done and reported by JOSE ADERVAL (3)ARUGAVO etol in2013.

Completely ossified type is found

In Europeans----1.5---12.5%

Finland -----1.5 %

Italy-----3.6-6 %

Poland-----4.72 %

Asia and china----4.08 %

South America and brazil---30.76%

Familial calcification of the SUPRA SCAPULAR LIGAMENT also has been reported. Amongst this, 5% is complete and 18% incomplete .

CLINICAL SIGNIFICANCE.

Supra scapular nerve may be injured either by direct or indirect trauma, by fracture neck of scapula, kinking or traction on a sling, affecting the nerve,; compression by a ganglion or idiopathic.

Symptoms of entrapment - will be increased pain on the postero lateral aspect of shoulder,with or without atrophy of spinatii.According to latest searches, males are 3-4 times more affected by supra scapular nerve entrapment than females, which explains the anatomical basis of entrapment.

nerve conduction velocity studies and electromyographic studies, may help in making a primary diagnosis in a patient presenting with postero lateral shoulder pain.

CT, MRI, and arthrography are the other investigations done.

IN mild cases, injection of local anesthetics helps. But this is only a temporary remedy.

Rehabilitation programme with gradual strengthening of the involved muscles is advised.

In extreme cases, surgical decompression is advocated by orthopedicians especially in sports people and athelets.

Ossification of SSL may also shift the attachment of omohyoid muscles,which has close attachment to it.

CONCLUSION.

Presence of supra scapular notch is a constant feature of scapula. But presence of a supra scapular ligament , though uncommon, has been reported , and ossification of such a ligament should be born in mind while treating shoulder pain in postero lateral aspect, especially in sports people, when other causes of shoulder pain are excluded.

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