

# Complete Ossification Of Superior Transverse Ligament: A Case Report

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## Abstract

Superior transverse scapular ligament (STSL) is a strong fibrous band that bridges the scapular notch creating a foramen that gives passage to the suprascapular nerve, whereas the suprascapular vessels pass over the ligament superiorly. STSL is sometimes ossified which may lead to suprascapular nerve entrapment syndrome. Previous work suggests that the incidence of complete ossification of the STSL varies in different populations. One of the causes of suprascapular nerve entrapment syndrome can be the complete ossification of STSL, therefore the clinician should keep this possibility in mind while dealing with patients of suprascapular nerve entrapment. Here, we are reporting a case of complete ossification of STSL in a dried scapula in an adult Indian male.

## INTRODUCTION

Superior transverse scapular ligament (STSL) converts the scapular notch into suprascapular foramen and is attached laterally to the root of coracoid process and medially to the limit of the notch. The documented variations of the STSL include calcification, partial or complete ossification and multiple bands [1]. In the diagnosis of suprascapular nerve entrapment syndrome these variations in the anatomy of the STSL sometimes feature in the hierarchy of possible etiologic factors [2]. We are describing a completely ossified STSL in a dried scapula of an adult Indian male.

## CASE REPORT

During routine bone extraction from an adult male cadaver for our bone library, it was observed that the left STSL was completely ossified. The ligament stretched across the entire length of the suprascapular notch of the left scapula. The superior maximal length was 1.3 cm while inferior maximal length was 1.0 cm and the thickness was 0.4 cm at lateral end of the notch and 0.2 cm at medial end of the notch (Fig.1 and 2). The dry weight of this entire scapula was observed to be 64gm. This left scapula bone appeared to be normal in all other parameters.

## Figure 1

Figure I: Shows the anterior view of the left scapula, ( : the completely ossified superior transverse scapular ligament)



Fig 1: Anterior view of left scapula

### Figure 2

Figure 2: Shows the superior view of the left scapula, ( : the completely ossified superior transverse ligament)



Fig 2: Superior view of left scapula

### DISCUSSION

The variations of STSL have been studied by various workers and these variations have been identified as possible predisposing factors to suprascapular nerve entrapment syndrome [1-4]. Silva et al [5] studied the prevalence of the ossified STSL on dry bones of scapulae in Brazilian population and reported the incidence to be 30.76%, which is quite high as compared to Vallois [6] who reported the incidence of ossified STSL to be 6.5% in Italian population and Kajava [7] reported the incidence to be 1.5% in Finnish scapulae. This indicates that the incidence of ossification of STSL varies in different populations and it will be worthwhile to study the incidence of completely ossified STSL in Indian population as well. Osuagwu et al [8] reported a case of complete ossification of the STSL in a Nigerian male adult. In Indian population Khan [9] and Das

et al [10] have reported a case of complete ossification of STSL. The present case report supports the view of earlier workers that the knowledge of complete ossification of STSL will be of help to the clinicians in the diagnosis and treatment of suprascapular nerve entrapment.

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