

Case Report

BILATERAL COMPLETE OSSIFICATION OF THE SUPERIOR TRANSVERSE SCAPULAR LIGAMENT

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ABSTRACT

The ossification of the superior transverse scapular ligament either partial or complete has been identified as one of the predisposing factors in suprascapular nerve entrapment syndrome since long. In the present case we found a bilateral completely ossified superior transverse scapular ligament, which is a rare finding. The Knowledge of this anatomical variation where the ossified superior transverse ligament converts the suprascapular notch into a foramen is important for clinicians in diagnosis and treatment of patients with suprascapular nerve entrapment.

KEYWORDS: Superior Transverse; Scapular Ligament; Bilateral; Ossification.

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INTRODUCTION

Superior transverse scapular ligament (STSL) is a strong fibrous band that bridges the scapular notch creating a foramen for the passage of suprascapular artery above and suprascapular nerve below the ligament. Complete ossification of the superior transverse scapular ligament has gained increased attention over the past few years, because of it being one of the possible causes of suprascapular nerve entrapment. The partial or complete ossification has been identified as a predisposing factor in cases of suprascapular nerve entrapment by various authors [1, 2, 3]. Various authors have reported cases of unilateral complete ossification of STSL [4, 5, 6, 7], but a bilateral complete ossification of STSL could not be found in literature after a thorough search. The aim of the present case study is to highlight a rare case of bilateral complete ossification, the knowledge of which is important for the clinicians in diagnosis and treatment of patients suffering from suprascapular nerve entrapment syndrome.

CASE REPORT

During routine bone extraction from an adult male cadaver for our bone library in both the right and left scapulae a completely ossified superior transverse scapular ligament was observed [fig.1]. The superior maximal length of the right and left STSL was 1.3 and 1.4cm respectively. The inferior maximal length was 1.2cm on both the sides. The thickness was 0.6cm and 0.5cm at the lateral end of the notch and 0.3cm and 0.4cm for the right and left scapulae respectively. The dry weight of the right scapula was 70gm and the left scapula was 68gm. Both the scapulae appeared normal in all other parameters.

DISCUSSION

The complete ossification of STSL has been identified as one of the predisposing factors for the suprascapular nerve entrapment syndrome. The variations of the STSL include calcification, partial or complete ossification and multiple bands. The incidence of complete ossification of STSL has been studied by various workers [8, 9, 10].



Figure 1: Showing the right and the left scapulae with complete ossification of the superior transverse scapular ligament [A. anterior view, B. superior view].

It varies widely in different populations, ranging between 1.5 -30% [8, 9, 10]. Tubbs et al [10] in their study on ossification of the STSL in 104 scapulae obtained from 52 skeletons did not find the bilateral ossification of STSL in any specimen. The entrapment of the suprascapular nerve at the suprascapular notch was first described by Thompson and Kopell [11]. According to these authors, the movement of abduction or horizontal adduction of the shoulder resulted in compression of the nerve against the STSL. The presence of an ossified STSL may also pose a challenge during decompression of the suprascapular notch if the condition is not fully appreciated[1]. In the present case we found the completely ossified STSL bilaterally therefore increasing its rarity.

CONCLUSION

The awareness of this anatomical variation in diagnosis and treatment of patients with suprascapular nerve entrapment is important for the radiologists, neurosurgeons and orthopaedicians.

Conflicts of Interests: None

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