Commentary to “Morphometry and Contents of the Suprascapular Notch with Potential Clinical Implications: A Cadaveric Study”

Azzat Al-Redouan1  David Kachlik1

1 Department of Anatomy, Second Faculty of Medicine, Charles University, Prague, Czech Republic

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We read with interest the article “Morphometry and contents of the suprascapular notch with potential clinical implications: a cadaveric study” by Tsikouris et al.1 However, we would like to point out several data that we find contradictory to our findings in previous studies and we have differing point of view.

The aforementioned study brought up an interesting hypothesis which discussed whether there is a correlation of an ossified superior scapular transverse ligament, also called suprascapular ligament (SL),2 to a dimensioned middle-transverse diameter of the suprascapular notch (SSN) in the SSN Type-IV according to Polguj et al SSN morphometric classification,3 which is also referred to as suprascapular foramen.2 The presented study suggested that an ossification process in the SL was correlated to SSN space narrowing in its horizontal plane and contributing to suprascapular nerve (SN) compression, but this premise does not seem to be the case. A SSN with a middle-transverse diameter mean of 5.10 mm can still accommodate the passing SN. The study by Tubbs et al demonstrating a compressed SN in 5 SSN out of 50 cadaveric studies was evidenced by histopathological examination of the SSN, and the diameter of those SSN was at critical stenosed stenosis. Meanwhile, Tsikouris et al1 demonstrated smaller in size SSN in association to SL ossification in their population sample but those SSN were not critically stenosed.

The focus on parameter in the study by Tsikouris et al1 was concerning the number of passing vessels within the SSN according to the morphological classification by Polguj et al.5 Tsikouris et al concluded that three elements passing through the SSN would cause SN nerve compression.1 However, the diameters of the passing vessels in relation to the SSN vertical and horizontal parameters were not elaborated on. In fact, an accompanying suprascapular vein can give protective properties by serving as a cushion against the SSN bony margins.7,8

In conclusion, the ossified SL does not necessary reduce the SSN internal space to a critical size. Type-V (the discreet notch) followed by Type-III (width larger than height) showed higher incidence of stenosis than Type-IV (foramen variant).5 Ossification of the SSN margins has more role in reducing the space capacity than ossification of the SL. Nevertheless, a nonossified SL can be flat in shape with sharper edge that can cause sling-effect irritation to the SN. A passing vessel would generate risk of stenosis if it reduced the SSN space capacity beyond an accommodating space for the passing SN.
Conflict of Interest
None declared.

References