Thoracic outlet syndrome (TOS) can be treated with osteopathic manipulative treatment (OMT) that compresses the brachial plexus and median nerve (PMM) that compresses the brachial plexus and median nerve. NMUS imaging that correlates with patient symptoms. NMUS in TOS patients identifies deformation of the PMM which can be quantified by measuring the degree of bowing. 3 fingers. Clinical exam revealed normal findings, except for palpatory restriction over the left arm. Electrodiagnostic study was normal. Treatment with OM was provided using MFR technique. The PBR decreased into the normal range (zero, or 0%), and symptoms in abduction abated, even at 120 degrees of abduction (see Figure 3).

Introduction

TOS frequently involves compression of the brachial plexus (BP) and median nerve (PMM) that compresses the brachial plexus and median nerve. NMUS imaging that correlates with patient symptoms. NMUS in TOS patients identifies deformation of the PMM which can be quantified by measuring the degree of bowing. Clinical exam revealed normal findings, except for palpatory restriction over the left arm. Electrodiagnostic study was normal. Treatment with OM was provided using MFR technique. The PBR decreased into the normal range (zero, or 0%), and symptoms in abduction abated, even at 120 degrees of abduction (see Figure 3).

Conclusion

NMUS of the thoracic outlet provides a new modality for clinicians to directly observe and monitor the effects of the manipulation. The tightening and forward collapse of the shoulder girdle. Figure 5. Serial still images captured from the video clip sequence demonstrating manipulation of the PMM. The sequence starts on the left and progresses to the right. Notice how the manipulating hand approaches the coracoid process (CP), the attachment site of the PMM, in the final image on the right side.

Figure 4. Srial still images captured from the video clip sequence demonstrating manipulation of the PMM. The sequence starts on the left and progresses to the right. Notice how the manipulating hand approaches the coracoid process (CP), the attachment site of the PMM, in the final image on the right side.

Discussion

A key element in TOS involves PMM shortening, with scapular protraction, forward 'collapse' of the shoulder girdle, and relative closure of the thoracic outlet (see Figure 5).

Imaging changes noted in the PMM during stress testing can be explained by deformation created from stretching force as the NBV is pulled into the muscle. Since the PMM has shorted, the NBV may be tensioning the nerve. This tensioning may cause the NBV to be situated further anteriorly, and with this position, may not undergo the same 'compression' after a nerve excursion. Imaging changes noted in the PMM during stress testing can be explained by deformation created from stretching force as the NBV is pulled into the muscle. Since the PMM has shorted, the NBV may be tensioning the nerve. This tensioning may cause the NBV to be situated further anteriorly, and with this position, may not undergo the same 'compression' after a nerve excursion.