An Osteopathic Approach to Symptomatic Scapular Dyskinesis

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Introduction

Scapular dyskinesis is the inappropriate motion of the scapula during shoulder movement that often occurs secondary to shoulder injuries. Additionally, the scapula can be a significant, yet underrecognized, contributor to common shoulder conditions, such as impingement, loss of motion, and pain. Although extensive research exists on the use of osteopathic manipulative therapy (OMT) to treat shoulder dysfunction, evidence for using OMT to treat scapular dyskinesis is limited.

Case

A.D., a 24-year-old male, presented to the clinic with a one-year history of bilateral, painless shoulder grinding during active circumduction and shoulder retraction. The patient reported bilateral arm paresthesia and cyanosis of the fingers upon cold exposure. Physical exam findings included globally reduced shoulder range of motion (ROM) and positive special tests, including Hawkins, Neer, and Adson's. On osteopathic exam, multiple thoracic and upper extremity somatic dysfunctions were appreciated and the patient was diagnosed with scapular dyskinesis, subacromial impingement syndrome, and thoracic outlet syndrome. Over three visits, pre- and post-treatment ultrasound measurements were used to track anatomic changes following utilization of direct and indirect osteopathic techniques on the scapula.

Results

Following OMT, A.D. reported complete resolution of upper extremity paresthesia and cyanosis and markedly reduced shoulder crepitus. Repeat evaluation showed increased ROM, negative orthopedic testing, and increased shoulder joint spaces evident on ultrasound.

Discussion

Addressing scapular dyskinesis with associated neurologic and circulatory deficits with OMT resulted in significant improvements in shoulder mechanics and improved quality of life. Limitations of this study include a lack of generalizability to the greater population and inter-user reliability of ultrasound. Further research is needed to illustrate the benefits of OMT for scapular dyskinesis in restoring neurologic, circulatory, and mechanical function.