Teaching NeuroImages: Differential diagnosis of scapular winging
G. Tsivgoulis, K. Vadikolias, N. Courcoutsakis, et al.
Neurology 2012;78:e109
DOI 10.1212/WNL.0b013e3182518361

This information is current as of February 21, 2013

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://www.neurology.org/content/78/17/e109.full.html
Teaching NeuroImages: Differential diagnosis of scapular winging

G. Tsivgoulis, MD
K. Vadikolias, MD
N. Courcoutsakis, MD
I. Heliopoulos, MD
E. Stamboulis, MD
C. Piperidou, MD

Scapular winging (SW) is caused by weakness of trapezius, rhomboids, and serratus anterior muscles. The different patterns of scapular movement among these causes assist in the differential diagnosis and are illustrated in the 3 described cases (table e-1 on the Neurology® Web site at www.neurology.org).1,2

Case 1 (figure 1, A–C) presented with right SW (lateral displacement of superior angle that became evident at arm abduction) due to upper trapezius weakness and atrophy that is also evident on shoulder MRI (figure 1D and figure e-1). Case 2 (figure 1, E–G) had right SW (lateral displacement of inferior angle that was accentuated when the patient pushed his elbow backwards against resistance) due to rhomboids weakness. Case 3 (figure 1H) had right SW (medial displacement of scapula that was enhanced during forward arm flexion) due to serratus anterior weakness.

AUTHOR CONTRIBUTIONS
Dr. Tsivgoulis: study design, drafting and revising the manuscript. Dr. Vadikolias: data collection, critical comments during manuscript revision. Dr. Courcoutsakis: data collection, critical comments during manuscript revision. Dr. Heliopoulos: data collection, critical comments during manuscript revision. Dr. Stamboulis: drafting and revising the manuscript. Dr. Piperidou: drafting and revising the manuscript.

REFERENCES

From the Departments of Neurology (G.T., K.V., I.H., C.P.) and Radiology and Medical Imaging (N.C.), Democritus University of Thrace, University Hospital of Alexandroupolis, Alexandroupolis; and Second Department of Neurology (E.S.), University of Athens, School of Medicine, “Attikon” University Hospital, Athens, Greece.

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.