A 32-year-old woman presented with a 5-year history of left shoulder pain, medial hand and forearm numbness, and progressive hand weakness and atrophy. Electrodiagnostic studies were characteristic of true neurogenic thoracic outlet syndrome, and a chest x-ray showed bilateral elongated C7 transverse processes. High-resolution ultrasound studies revealed compression of the left lower trunk (LT) between a fibrous band and artery (figure, A). Magnetic resonance neurography (figure, B) and operative exploration (figure, C) confirmed the ultrasound findings. Clinical improvement was noted following surgical neurolysis of the LT.

High-resolution ultrasound may be a useful and quick bedside tool to identify causative structural pathology in this classic neuromuscular disorder.

Neil G. Simon, MBBS, FRACP, Jeffrey W. Ralph, MD, Cynthia Chin, MD, Michel Kliot, MD

From the University of California, San Francisco.

Author contributions: Dr. Simon: study design, data acquisition and analysis, drafting and critical revision of the manuscript. Dr. Ralph: data acquisition and analysis, critical revision of the manuscript for important intellectual content. Dr. Chin: data acquisition and analysis, critical revision of the manuscript for important intellectual content. Dr. Kliot: study design, data acquisition and analysis, critical revision of the manuscript for important intellectual content.

Study funding: Dr. Simon acknowledges funding from the National Health and Medical Research Council and the Motor Neurone Disease Research Institute of Australia (grant 1039520).

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

Correspondence to Dr. Simon: n.simon@unsw.edu.au

Sonographic diagnosis of true neurogenic thoracic outlet syndrome
Neil G. Simon, Jeffrey W. Ralph, Cynthia Chin, et al.
Neurology 2013;81;1965
DOI 10.1212/01.wnl.0000436621.33155.ed

This information is current as of November 25, 2013

Updated Information & Services
including high resolution figures, can be found at:
http://n.neurology.org/content/81/22/1965.full

References
This article cites 1 articles, 0 of which you can access for free at:
http://n.neurology.org/content/81/22/1965.full#ref-list-1

Citations
This article has been cited by 1 HighWire-hosted articles:
http://n.neurology.org/content/81/22/1965.full#otherarticles

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
EMG
http://n.neurology.org/cgi/collection/emg
MRI
http://n.neurology.org/cgi/collection/mri
Peripheral nerve trauma
http://n.neurology.org/cgi/collection/peripheral_nerve-trauma
Ultrasound
http://n.neurology.org/cgi/collection/ultrasound

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/about/about_the_journal#permissions

Reprints
Information about ordering reprints can be found online:
http://n.neurology.org/subscribers/advertise

Neurology ® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2013 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.