

Teaching NeuroImages: Unilateral clubbing in hemiplegia

Prasuna Velur, MD
Giridhar P.
Kalamangalam, MD,
DPhil

Correspondence & reprint
requests to Dr. Velur:
vprasuna@gmail.com

Figure 1 Arm positions at rest

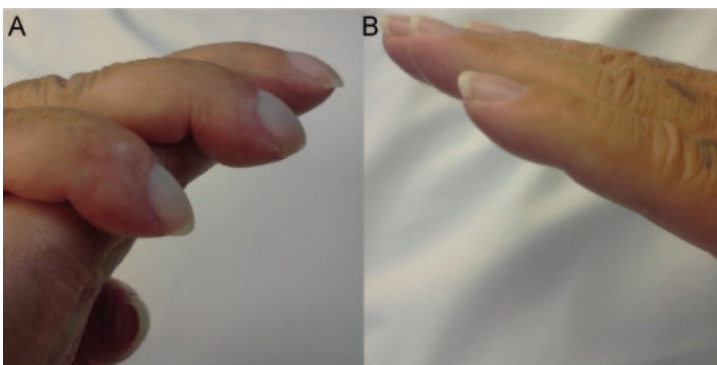


Symmetric view of the patient's arms, showing the pyramidal posturing at rest of the hemiplegic right hand.

A 64-year-old man was evaluated for seizures due to traumatic brain injury 25 years previously. Physical examination revealed aphasia, right hemiplegia, and clubbing of all fingers of the hemiplegic arm (figures 1 and 2). Digital clubbing is a bulbous beaked fingertip deformity due to hyperplasia of dermal fibrovascular tissue.

Advanced clubbing involves bony destruction in the distal phalanges (acro-osteolysis), with subperiosteal new bone formation from osteoblast proliferation. Bilateral symmetric clubbing is classically seen in congenital cyanotic heart disease and chronic suppurative lung conditions. Unilateral clubbing may occur secondary to local vascular cause (e.g., arteriovenous fistula), or more rarely in systemic conditions. Unilateral clubbing exclusively due to chronic hemiplegia is rare (~2% of cases¹), and may represent trophic changes secondary to local autonomic dysregulation.²

Figure 2 Right-sided finger clubbing



(A) The weak right hand, supported by the examiner, demonstrates finger clubbing. (B) The normal left hand seen in profile.

AUTHOR CONTRIBUTIONS

Both authors contributed equally to the study concept and design, acquisition of data, analysis and interpretation of data, drafting of the manuscript, critical revision of the manuscript for important intellectual content, administrative, technical, and material support.

REFERENCES

1. Siragusa M, Schepis C, Cosentino FI, Spada RS, Toscano G, Ferri R. Nail pathology in patients with hemiplegia. *Br J Dermatol* 2001;144:557–560.
2. Alvarez AS, McNair D, Wildman J, Hewson JW. Unilateral clubbing of the finger nails in patients with hemiplegia. *Gerontol Clin* 1975;17:1–6.

From the Department of Neurology, University of Texas Health Sciences Center, Houston.

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

Neurology[®]

Teaching *NeuroImages*: Unilateral clubbing in hemiplegia

Prasuna Velur and Giridhar P. Kalamangalam

Neurology 2012;78:e122

DOI 10.1212/WNL.0b013e3182553cab

This information is current as of May 7, 2012

Updated Information & Services	including high resolution figures, can be found at: http://www.neurology.org/content/78/19/e122.full.html
References	This article cites 2 articles, 0 of which you can access for free at: http://www.neurology.org/content/78/19/e122.full.html##ref-list-1
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.neurology.org/misc/about.xhtml#permissions
Reprints	Information about ordering reprints can be found online: http://www.neurology.org/misc/addir.xhtml#reprintsus

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 © 2012 by AAN Enterprises, Inc.. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

