A 23-year-old medical student presented with slowly progressive swelling of the terminal digits that had a duration of 3 years (Figure 1).

There was no family history of clubbing or cyanosis. The patient had no signs of cyanosis or a history of cardiac, pulmonary, or inflammatory bowel disease. His physical activity, including field sports and regular workouts, was unlimited. On examination, he had normal cardiac, lung, and abdominal findings. Furthermore, lung function tests, electrocardiography, Doppler echocardiography, and chest x-ray revealed normal results. Laboratory tests, including vasculitis-associated antibodies and thyroid function, also produced normal results.

Contrast-enhanced 3D magnetic resonance angiography of the left hand showed no evidence of arterial stenosis, arteriovenous shunting, or vasculitis. However, there was marked hypervascularization in the terminal digits (Figure 2), reflecting a potential source of clubbing.

This example demonstrates the potential of magnetic resonance angiography for diagnostic visualization of vascular abnormalities, without performing invasive arterial catheterization or applying ionized radiation.

Figure 1. Photograph of the patient’s left hand showing clubbing.

Figure 2. Maximum intensity projection reconstruction of a 3D, contrast-enhanced magnetic resonance angiogram of the patient’s left hand. Note the peripheral hypervascularization in the terminal digits, particularly of the first, fourth, and fifth fingers. There is no evidence of vasculitis or arterial stenosis or occlusion.
Clubbing due to Peripheral Hypervascularization: Recognition by Contrast-Enhanced, Three-Dimensional Magnetic Resonance Angiography
Frank Wiesmann, Meinrad Beer, Ulrich Krause, Thomas Pabst, Werner Kenn, Dietbert Hahn and Georg Ertl

_Circulation._ 2001;104:2503
doi: 10.1161/hc4501.098020
_Circulation_ is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2001 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/104/20/2503

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in _Circulation_ can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to _Circulation_ is online at:
http://circ.ahajournals.org//subscriptions/