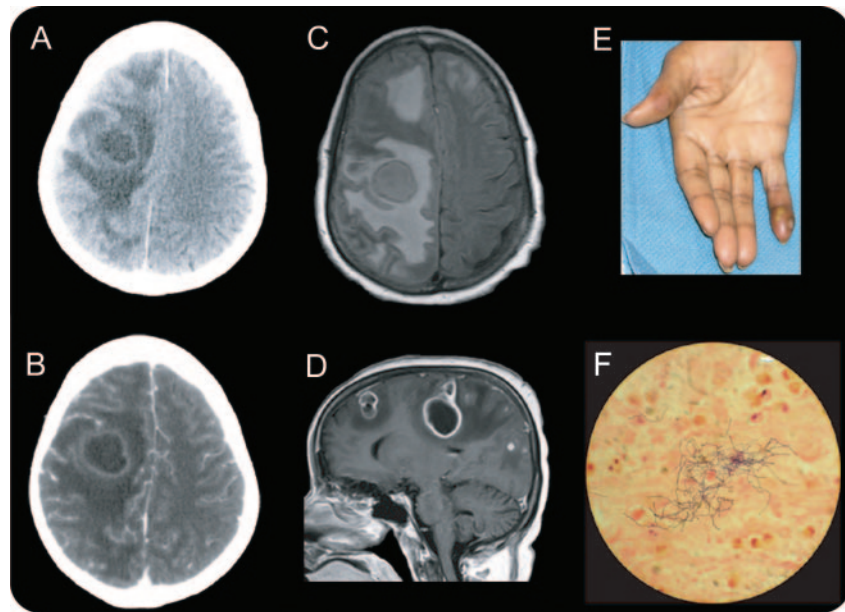


# Teaching NeuroImages: CNS actinomycosis in an immunocompetent patient

Nandakumar S.  
Narayanan, MD, PhD  
Faheem Sheriff, MD  
John M. Boyce, MD

Correspondence & reprint  
requests to Dr. Narayanan:  
kumar.narayanan@yale.edu

**Figure** CNS actinomycosis



(A) Noncontrast head CT, (B) contrast head CT, (C) MRI T2 fluid-attenuated inversion recovery, and (D) sagittal T1 postgadolinium images demonstrated multiple ring-enhancing lesions in right parietal and frontal lobes with surrounding vasogenic edema. (E) Photographs of the fifth digit showed subcutaneous nodules and (F) Gram stain of brain biopsy revealed actinomycosis.

A 70-year-old woman presented with a 2-week history of left hemiparesis. She had no history of fever or of risk factors for opportunistic infections. Physical examination revealed subcutaneous nodules on her fifth digit, left hemiparesis, and dysarthria. Neuroimaging revealed ring-enhancing masses (figure, A–D). Brain and skin biopsies revealed mixed infection with *Actinobacillus actinomycetemcomitans* and *Actinomyces israelii* (figure, E and F). Clinical improvement was observed following intracranial abscess drainage and parenteral penicillin followed by prolonged oral amoxicillin.

CNS actinomycosis is a rare infection which must be identified to ensure appropriate antimicrobial choice.<sup>1</sup> A common presentation is cerebral abscess<sup>1,2</sup> in immunocompetent patients.<sup>2</sup>

## REFERENCES

1. Smego Jr RA. Actinomycosis of the central nervous system. *Rev Infect Dis* 1987;9:855–865.
2. Akhaddar A, Elouennass M, Baallal H, et al. Focal intracranial infections due to *Actinomyces* species in immunocompetent patients: diagnostic and therapeutic challenges. *World Neurosurg* 2010;74:346–350.

From the Department of Neurology (N.S.N.), Yale Medical School, New Haven, CT; Kilimanjaro Christian Medical Centre (F.S.), Tanzania, South Africa; and Infectious Disease (J.M.B.), Hospital of Saint Raphael, New Haven, CT.

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org](http://Neurology.org) for full disclosures.

# Neurology<sup>®</sup>

## Teaching *NeuroImages*: CNS actinomycosis in an immunocompetent patient

Nandakumar S. Narayanan, Faheem Sherif and John M. Boyce

*Neurology* 2012;79:e85

DOI 10.1212/WNL.0b013e3182684623

This information is current as of September 3, 2012

<b>Updated Information &amp; Services</b>	including high resolution figures, can be found at: <a href="http://n.neurology.org/content/79/10/e85.full">http://n.neurology.org/content/79/10/e85.full</a>
<b>References</b>	This article cites 2 articles, 0 of which you can access for free at: <a href="http://n.neurology.org/content/79/10/e85.full#ref-list-1">http://n.neurology.org/content/79/10/e85.full#ref-list-1</a>
<b>Subspecialty Collections</b>	This article, along with others on similar topics, appears in the following collection(s): <b>Abscess</b> <a href="http://n.neurology.org/cgi/collection/abscess">http://n.neurology.org/cgi/collection/abscess</a> <b>All Infections</b> <a href="http://n.neurology.org/cgi/collection/all_infections">http://n.neurology.org/cgi/collection/all_infections</a> <b>Bacterial infections</b> <a href="http://n.neurology.org/cgi/collection/bacterial_infections">http://n.neurology.org/cgi/collection/bacterial_infections</a> <b>Fungal infections</b> <a href="http://n.neurology.org/cgi/collection/fungal_infections">http://n.neurology.org/cgi/collection/fungal_infections</a>
<b>Permissions &amp; Licensing</b>	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://www.neurology.org/about/about_the_journal#permissions">http://www.neurology.org/about/about_the_journal#permissions</a>
<b>Reprints</b>	Information about ordering reprints can be found online: <a href="http://n.neurology.org/subscribers/advertise">http://n.neurology.org/subscribers/advertise</a>

*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.

