Mystery Case: Baló concentric sclerosis

Gerke S. Grooters, MD
Leo H. Visser, MD, PhD
Frederik Barkhof, MD,
PhD
Marjo S. van der Knaap,
MD, PhD
J. Thies van Asseldonk,
MD, PhD

Correspondence to
Dr. van Asseldonk:
tvasseldonk@taz.nl

Figure Baló concentric sclerosis

(A) Axial noncontrast T2-weighted image. (B) Sagittal noncontrast T1-weighted image. (C) Axial gadolinium-enhanced T1-weighted image. (D) Axial diffusion-weighted image. The large lesion in the left frontal white matter shows multiple T2-hyperintense and T1-hypointense rings. Gadolinium enhancement and diffusion restriction are present in the outermost (active) rings. A small lesion is shown in the right hemisphere (arrow).

A 45-year-old man presented with progressive Broca aphasia and right hemiparesis. MRI demonstrated a large white matter lesion with multiple rings (figure). These centrifugal rings reflect concentric layers of active demyelination, typical for Baló concentric sclerosis.¹ CSF showed oligoclonal bands and a mild pleocytosis. Partial recovery followed 5 days of treatment with IV methylprednisolone (1 g daily). Baló concentric sclerosis, a rare variant of multiple sclerosis, was long thought to have a progressive and fatal course.

The present case confirms the possibility of a more benign course in some cases.²

AUTHOR CONTRIBUTIONS

All authors contributed equally in the interpretation of data and in drafting and revising the manuscript.

REFERENCES

1. Baló J. Encephalitis periaxialis concentrica. *Arch Neurol Psychiatry* 1928;19:242–264.

From the Department of Neurology (G.S.G., J.T.v.A.), Twee Steden Hospital Tilburg; Department of Neurology (L.H.V.), St. Elisabeth Hospital Tilburg; Department of Radiology (F.B.), VU University Medical Center Amsterdam; and Department of Child Neurology (M.S.v.d.D.), VU University Medical Center Amsterdam, the Netherlands.

Study funding: No targeted funding reported.

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

2. Karaarslan E, Altintas A, Senol U, et al. Baló's concentric sclerosis: clinical and radiologic features of five cases. *AJNR Am J Neuroradiol* 2001;22:1362–1367.

MYSTERY CASE RESPONSES

The Mystery Case series was initiated by the *Neurology*® Resident & Fellow Section to develop the clinical reasoning skills of trainees. Residency programs, medical student preceptors, and individuals were invited to use this Mystery Case as an education tool. Responses were solicited through a group e-mail sent to the American Academy of Neurology Consortium of Neurology Residents and Fellows and through social media. All the answers that we received came from individual residents rather than groups and they were all well-reasoned and thoughtful. The majority of them

came through social media. Many respondents (24%) have correctly identified the neuroradiologic features of Baló concentric sclerosis. Alternate diagnoses that were proposed included CNS lymphoma (17%) and infection (10%).

This Mystery Case illustrates a rather rare demyelinating disease that previously was considered to have a rapidly progressive monophasic course, similar to the Marburg variant of multiple sclerosis. This report is consistent with a line of evidences suggesting that Baló concentric sclerosis could have a more indolent course with prolonged survival or spontaneous remission.

Dragos A. Nita, MD, PhD

The Hospital for Sick Children, University of Toronto, Toronto, Canada.

Neurology®

Mystery Case: Baló concentric sclerosis

Gerke S. Grooters, Leo H. Visser, Frederik Barkhof, et al.

Neurology 2013;80:e71-e72

DOI 10.1212/WNL.0b013e3182824e7d

This information is current as of February 11, 2013

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/80/7/e71.full
References	This article cites 2 articles, 1 of which you can access for free at: http://n.neurology.org/content/80/7/e71.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): All Demyelinating disease (CNS) http://n.neurology.org/cgi/collection/all_demyelinating_disease_cns MRI http://n.neurology.org/cgi/collection/mri
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.