Teaching NeuroImages:

Acute tetraparesis

Mind the brain

M. Di Filippo, MD*
C. Balucani, MD*
L. Parnetti, MD
G. Cardaioli, MD
P. Floridi, MD
P. Calabresi, MD

Address correspondence and
reprint requests to Dr.
Massimiliano Di Filippo, Clinica
Neurologica, Ospedale S. Maria
della Misericordia, Università
degli Studi di Perugia, Perugia,
Italy
difilippo@unipg.it

Figure Diffusion-weighted coronal MRI showing bilateral hyperintense parasagittal lesions

A 65-year-old woman presented with acute tetraparesis. Neurologic examination showed severe leg paresis and mild proximal arm weakness, bilateral extensor plantar responses, hyperreflexia, and abulia. Brain MRI showed bilateral anterior cerebral artery (ACA) territory infarctions (figure). On evaluation, she had patent foramen ovale, deep venous thrombosis, and bilateral moderate carotid artery disease. Bilateral ACA infarctions occur with simultaneous cardiac emboli to both ACAs or by a single azygous ACA supplying both hemispheres, and can result in acute paraparesis or tetraparesis and neuropsychological alterations due to frontal lobe damage.^{1,2}

Although paraparesis and tetraparesis may initially suggest spinal cord involvement, bilateral frontal processes should be considered.

ACKNOWLEDGMENT

The authors thank Professor Didier Leys for critically reading the manuscript and for suggestions.

REFERENCES

1. Kang SY, Kim JS. Anterior cerebral artery infarction: stroke mechanism and clinical-imaging study in 100 patients. *Neurology* 2008;70:2386–2393.
2. Minagar A, David NJ. Bilateral infarction in the territory of the anterior cerebral arteries. *Neurology* 1999;52:886–888.

*These authors contributed equally.

From the Clinica Neurologica (M.D.F., C.B., L.P., G.C., P.C.) and Sezione di Neuroradiologia (P.F.), Ospedale S. Maria della Misericordia, Università degli Studi di Perugia; and IRCCS Fondazione S Lucia (M.D.F., C.B., P.C.), Rome, Italy.

Disclosure: Dr. Di Filippo received a travel grant from Biogen to attend an international conference. Drs. Balucani, Parnetti, Cardaioli, and Floridi report no disclosures. Dr. Calabresi serves as an editorial board member of *Lancet Neurology*, *the Journal of Neuroscience*, and *Synapse*, and receives research support from Bayer Schering, Biogen, Boehringer Ingelheim, Eisai, Novartis, Lundbeck, Sanofi-Aventis, Sigma-Tau, UCB Pharma, Ricerca Corrente IRCCS and Ricerca Finalizzata IRCCS [European Community Grants SYNSCAFF and REPLACES], and the Italian Minister of Health.

Neurology[®]

Teaching *NeuroImages*: Acute tetraparesis: Mind the brain

M. Di Filippo, C. Balucani, L. Parnetti, et al.

Neurology 2009;73:e58

DOI 10.1212/WNL.0b013e3181b8792d

This information is current as of September 21, 2009

Updated Information & Services

including high resolution figures, can be found at:
<http://n.neurology.org/content/73/12/e58.full>

References

This article cites 2 articles, 2 of which you can access for free at:
<http://n.neurology.org/content/73/12/e58.full#ref-list-1>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):
All Cerebrovascular disease/Stroke
http://n.neurology.org/cgi/collection/all_cerebrovascular_disease_stroke
Infarction
<http://n.neurology.org/cgi/collection/infarction>
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 . All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.