Release Study Group. Clinical efficacy and tolerability of a new levodopa/benserazide dual-release formulation in Parkinsonian patients. Clin Neuropharmacol 1997;20:130–139.

- Lees AJ. The relevance of Lewy body to the pathogenesis of idiopathic Parkinson's disease. J Neurol Neurosurg Psychiatry 1988;51:144-147.
- Fahn S, Elton R, and Unified Parkinson's Disease Rating Scale Development Committee. Unified Parkinson's Disease Scale. In: Fahn S, Marsden CD, Calne D, eds. Recent developments in Parkinson's disease, vol 2. New York: Raven Press, 1987:153–163.
- Durif F, Vidailhet M, Assal F, Roche C, Bonnet AM, Agid Y. Low-dose clozapine improves dyskinesia in Parkinson's disease. Neurology 1997;48:658–662.
- 8. Heinzel G, Woloszczak R, Thomann P, eds. TopFit 2.0 pharmacokinetic and pharmacodynamic data analysis system for the PC. Stuttgart: Fischer, 1993.
- 9. Hills M, Armitage P. The two-period cross-over clinical trial. Br J Clin Pharmacol 1979;8:7–20.
- Crevoisier CH, Hoevels B, Zürcher G, Da Prada M. Bioavailability of levodopa after Madopar LP administration in healthy volunteers. Eur Neurol 1987;27(suppl 1):36-46.

Neuro Images



Figure. Sagittal T1-weighted imaging (A) identifies multiple tubular structures in the distribution of the perforating arteries. They are differentiated from lacunae by their location, lack of peripheral hyperintensity on fluid-attenuated inversion recovery (FLAIR) images (FLAIR images [B] and T2-weighted images [C]), and convergence toward the ventricles (A–C).

Unusually prominent perivascular spaces

G.R. Eichhorn, MD, Z. Ammache, MD, W. Bell, MD, W.T.C. Yuh, MD, Iowa City, IA

A 50-year-old right-handed woman was referred for evaluation of abnormal MRI studies (figure) that were obtained because of a 2-month history of left ear pain, which had resolved in the interim. Results of neurologic and comprehensive neuropsychologic evaluation were normal.

Virchow-Robin spaces (VRS) are perivascular extensions of the pia mater accompanying the perforating arteries (but not the veins) of the brain. VRS can be seen at any age but tend to enlarge with aging.¹ Prominent VRS also occur in the periventricular and supraventricular white matter and rarely mimic pathologic lesions,² such as cystic infection, mucopolysaccharidosis, lacunar infarction, and MS.

Heier LA, Bauer CJ, Schwartz L, Zimmerman RD, Morgello S, Dec MD. Large Virchow–Robin spaces: MR–clinical correlation. AJNR Am J Neuroradiol 1989;10:929–936.

Ogawa T, Okudera T, Fukasawa H, et al. Unusual widening of Virchow– Robin spaces: MR appearance. AJNR Am J Neuroradiol 1995;16:1238– 1242.

Neurology®

Unusually prominent perivascular spaces G.R. Eichhorn, Z. Ammache, W. Bell, et al. *Neurology* 2001;56;1242 DOI 10.1212/WNL.56.9.1242

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/56/9/1242.full
References	This article cites 2 articles, 1 of which you can access for free at: http://n.neurology.org/content/56/9/1242.full#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/about/about_the_journal#permissions
Reprints	Information about ordering reprints can be found online: http://n.neurology.org/subscribers/advertise

This information is current as of May 8, 2001

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.

