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### *Reply:*

G. Zuccoli

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**Reply:**

We thank Borges et al for their interest in our article.<sup>1</sup> We agree that fornical involvement represents 1 of the unusual findings in Wernicke encephalopathy (WE).

The involvement of other anatomic substrates of memory like the thalami and the mamillary bodies represent typical MR imaging findings of WE, being present in 80% and 45% of patients, respectively.<sup>1</sup> In our article, we did not find involvement of the fornix in any of the 56 patients.<sup>1</sup> In our review of the literature (written before our article<sup>1</sup>), we found only 2 of 53 patients showing fornical involvement.<sup>2</sup> WE is an acute neurologic disorder characterized by changes in consciousness, ocular dysfunction, and gait disturbances. The memory deficits are characteristics of Wernicke-Korsakoff syndrome (WKS), which, in most cases, is the inevitable outcome of WE. The fornix projects mainly to the mamillary body and also to the septal region. Thus, the fornix is likely linked, to some extent, to the memory im-

pairment observed in WKS. However, on the basis of the higher incidence of signal-intensity alterations in the thalami and mamillary bodies in patients with WE, we believe that these regions are responsible for most of the memory deficits of WKS.

**References**

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G. Zuccoli  
Radiology Department  
Children's Hospital of Pittsburgh  
Pittsburgh, Pennsylvania

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