RESPONSE TO LETTER TO THE EDITOR

Response to “Cefepime-Induced Encephalopathy: A Possible Additional Mechanism of Neurotoxicity”

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We thank Dr. Fernández-Fernández and Dr. Ameneiros-Lago for their interest in our article and appreciate their comment about another possible mechanism of cefepime neurotoxicity. Acquiring encephalopathy associated with carnitine deficiency has rarely been reported in the literature and mostly occurs in patients with a severe malnutrition state or other rare secondary causes [1–3]. The use of β -lactam antibiotics, quinolone antibiotics, specific anticancer drugs (etoposide, actinomycin D, and vinblastine), and omeprazole can cause the inhibition of carnitine reabsorption by organic cation transporter novel 2 (OCTN2) in the kidney [4]. Therefore, we believe that there is a possibility that after cefepime administration, carnitine deficiency may predispose to the development of acute encephalopathy symptoms. In clinical practice, it will be beneficial to test for serum and urine carnitine levels, especially in patients with exposure to cefepime treatment for a more extended period. Once a low serum carnitine level has been confirmed, oral carnitine supplementation may help to reverse the condition, in addition to early cefepime discontinuation.

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Published online: 14 January 2020

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This comment refers to the article available at <https://doi.org/10.1007/s12028-019-00682-y>; <https://doi.org/10.1007/s12028-019-00894-2>.