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Parasitic encephalitis in immunocompetent individuals

Authors' reply

We thank Amir Abdoli for his comments. Our intention in this Seminar[1] was to bring together knowledge about the most important infectious causes, along with information about the rapidly growing field of autoimmune encephalitis, to provide a single comprehensive approach. Previously, the two have been dealt with rather separately, despite the large overlap in clinical features. As indicated in the titles of the tables in the Seminar, selected causes of encephalitis in immunocompetent individuals were presented. Although numerous pathogens have been associated with encephalitis,[2,3] the focus on immunocompetent individuals and space constraints meant that we were limited by the number of agents that we could include. Indeed, the sheer number of potential pathogens, in addition to the changing and emerging nature of infectious causes, precludes exhaustive cataloguing. While *Toxoplasma gondii* **[A: Edit OK?]** rarely causes encephalitis in immuncompetent individuals, it is, as pointed out by Abdoli, an important consideration in the immunocompromised. Eosinophilic meningoencephalitis is not only associated with *Angiostrongylus cantonensis*, but also with *Gnathostoma* species. Cerebral disease is a highly unusual manifestation of schistosomiasis and can present as an acute encephalopathy associated with granulomata harbouring schistosomal eggs in the brain.[4] CNS migration of toxocariasis is rarely observed, but can

result in a number of neurological disorders, including cerebral vasculitis, epilepsy, and meningoencephalitis.[5] *Taenia solium*, although an important cause of epilepsy worldwide with high seroprevalence in many areas, is an exceedingly rare cause of acute encephalitis.

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1 Venkatesan A, Michael BD, Probasco JC, Geocadin RG, Solomon T. Acute encephalitis in immunocompetent adults. *Lancet* 2019; **393:** 702–16.

2 Carol G, Arun V. Encephalitis. In: Scheld W WR, Marra CM, eds. Infections of the central nervous system. Philadelphia, PA, USA: Wolters Kluwer Health, 2014: 84-111.

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4 Roberts M, Cross J, Pohl U, Lucas S, Dean A. Cerebral schistosomiasis. *Lancet Infect Dis* 2006; **6:** 820.

5 Nicoletti A. Toxocariasis. *Handb Clin Neurol* 2013; **114:** 217–28.