Neurocysticercosis in Australia: still free of autochthonous cases?

To the Editor: I have read two recent reports on neurocysticercosis in the Journal.[1,2] After performing a literature search for Australian cases of neurocysticercosis (PubMed search, using the terms "cysticercosis", "neurocysticercosis" and "Australia"), I found reports of 39 patients, and the reports of 33 of these patients were published in the past two decades. This suggests that the prevalence of neurocysticercosis in Australia is rising, or that it has been increasingly recognised and reported in recent years. As expected in a developed country, more than three-quarters of the patients were immigrants from neurocysticercosis endemic areas, and the remainder were Australian residents who had travelled to endemic regions. So, although it appears that Australia is free of locally acquired neurocysticercosis, it is possible that some immigrants who developed the disease while living in Australia were not infected overseas, because some of them developed the disease more than 10 years after they migrated from their home countries.

The occurrence of neurocysticercosis among people returning from endemic areas to cysticercosis-free countries shows that cysticerci may remain asymptomatic for a long time in the nervous system or may become symptomatic years (or even decades) after infection.[3] Indeed, certain forms of neurocysticercosis, including calcifications, chronic arachnoiditis, subarachnoid cysts and even spinal cysticerci may manifest a long time after infection. However, the single cysticercus granuloma causes symptomatic disease in the first few months after infection;[4] this form of the disease occurs mainly in people who have not had previous infection and involves an acute inflammatory reaction to the implantation of one cysticercus in the brain parenchyma. At least seven of the immigrants to Australia with neurocysticercosis had this form of the disease, and some of them developed symptoms up to 3 years after arrival, suggesting local acquisition of the disease from a contact infected with *Taenia solium*. Unfortunately, case reports and case series of neurocysticercosis diagnosed in Australia do not include information on whether household contacts of diagnosed patients had been tested for carriage of *Taenia*. Increased awareness of the mechanisms of disease transmission for neurocysticercosis will help to reduce further spread of this zoonosis.

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Competing interests: No relevant disclosures.

doi: 10.5694/mja11.11443

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2 Hewagama SS, Darby JD, Sheorey H, Daffy JR. Seizures related to praziquantel therapy in neurocysticercosis [letter]. *Med J Aust* 2010; 193: 246-247.

3 Dixon HBF, Lipscomb FM. Cysticercosis: an analysis and follow-up of 450 cases. Medical Research Council Special Report Series No. 299. London: Her Majesty's Stationery Office, 1961:1-58.

4 Garcia HH, Gonzalez AE, Rodriguez S, et al. Neurocysticercosis. Unraveling the nature of the single cysticercal granuloma. *Neurology* 2010; 75: 654-658. ❑