Experts highlight risk of rat lungworm

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RESEARCH indicating that *Angiostrongylus cantonensis* – or rat lungworm – has caused severe haemorrhagic meningoencephalitis in two young Sydney girls has highlighted the difficulties in treating the rare condition.

A paper published recently in the journal *Clinical Infectious Diseases* detailed the cases of the girls aged 14 months and 10 months who lived within kilometres of each other. They are understood to be the first autochthonous cases among young children in the greater Sydney area.

The two cases, neither of which had notable animal exposures or known mollusc ingestion, took place within days of one another in 2011. The younger girl died 27 days after hospitalisation.

"Angiostrongylus cantonensis, the most common cause of eosinophilic meningoencephalitis worldwide, is endemic in the Caribbean, in East and Southeast Asia, and throughout the Pacific basin, including Hawaii and parts of Australia," the paper stated. In Australia, human infection generally stems from the ingestion of snails or other molluscs that have in turn ingested rat faeces containing larvae, hatched from eggs laid by the worms in the rodents' pulmonary arteries and cardiac cavities.

Infection can also occur by ingesting improperly washed or



cooked food contaminated with the larvae.

"Larvae penetrate the intestinal wall, entering the circulatory system before migrating to the [central nervous system]," according to the paper.

"Unable to complete their life cycle, the larvae die, leading to intense CNS inflammation.

"The finding of larvae in the pulmonary vasculature at autopsy of the first child has been reported in only a small number of cases previously, and suggests that some larvae successfully migrate beyond the CNS."

Both girls were treated with corticosteroids leading to varying outcomes complicated by differing factors.

"Clinicians should be aware of the geographic distribution of this worm and its potential to cause death and severe disability," concluded authors. "Work is needed to better define the treatment of severe cases, and to establish effective preventive strategies." *Clin Infect Dis 2013; online 9 July*

Inside Story: The slug that caused a medical nightmare, page 16.