

CLINICS IN DIAGNOSTIC IMAGING: HYDATID CYSTS OF THE LUNG AND LIVER

Dear Sir,

In a recent Clinics article⁽¹⁾, the authors reported on a patient with liver and lung hydatid cysts and identified the causative agent being the parasite *Echinococcus*. Hydatid cysts are rare human infections, but are complex disease processes with its geographical area of occurrence becoming larger, and therefore, emerging as a greater public health hazard^(2,3). The two *Echinococcus* organisms reported to cause cysts are *Echinococcus granulosus*⁽²⁾ or *granulosus* and *E. alveolari*^(2,4). It should be noted that *E. alveolaris* is probably better identified as *E. multilocularis (alveolaris or alveolar)*⁽²⁾.

It is mentioned that domestic dogs are the definitive host; however, others reported that it is also in the fox⁽³⁾. As suggested by the authors⁽¹⁾, other animals can serve as intermediate hosts for these parasites (e.g. sheep)⁽²⁾. It is likely that infected foxes are transmitting these parasites to domesticated dogs and cats, resulting in a wider diversity of intermediate hosts⁽³⁾.

There are distinct differences in hydatid cysts caused by *E. granulosus* and *E. multilocularis*. Cysts caused by *E. granulosus* are “typically unilocular as spherical or subspherical”, with smooth, thin-walled lesions which are well-defined, and have clear fluid often associated with a single chamber^(2,5). *E. multilocularis*, on the other hand, produces a multilocular cyst, containing a solid invasive lesion that is often calcified along with connective tissue and jelly-like material^(2,5). *E. multilocularis* often appears like a slow-growing malignant tumour and is commonly mistaken as a tumour⁽²⁾.

Treatment of these diseases is very difficult and highly expensive (e.g. US\$300,000), warranting diligence in public health prevention⁽³⁾, with the most difficult cysts often involving *E. multilocularis*. However, *E. multilocularis* appears to have the lower prevalence of the two organisms.

Yours sincerely,

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