

***Echinococcus granulosus* protoscolex in a patient with a pulmonary hydatid cyst**

*Protoscolex d'Echinococcus granulosus
chez un patient atteint de kyste hydatique pulmonaire*

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A 19-year-old man presented to the emergency department with a 2-month history of left costal pain exacerbated with breathing. Previously, he had worked as a shepherd and lived with a dog. Laboratory investigations revealed hyperleukocytosis (14930 leukocytes/mm³, neutrophils 88.8% and eosinophils 0%). Routine blood chemistry such as renal tests and liver enzymes were within normal ranges. Computed tomography of the chest revealed a large unilocular cyst of 8 × 8 cm in size in the left lung's lower lobe (figure 1A). Surgical removal of cyst allowed sampling of the cystic content. Microscopic examination confirmed the presence of many protoscolices that were diagnostic of the tapeworm *Echinococcus granulosus* (figure 1B). Human cystic echinococcosis (CE, also called hydatidosis, or hydatid disease) is caused by the larval stages of *Echinococcus granulosus* sensu lato [1]. Humans become infected by

ingesting eggs released by the definitive host (dog), leading to the development of cysts in various organs. It is present worldwide, being more frequently in rural and grazing areas. Cystic echinococcosis remains silent for years before the enlarging cysts cause symptoms in the affected organs. Immunodiagnostic tests can be very helpful in the diagnosis particularly in conjunction with imaging, and should be used before invasive methods. Unfortunately, serological methods for testing CE patients have 60 to 90% sensitivity, increasing the false negative rate up to 40% [1]. Various options for patient's management are used, depending on cyst stage. It includes, alone or combined, either surgery, non-surgical procedures, albendazole therapy or "watch and wait" approach. Our patient was treated with albendazole for 1 month with no complications at follow-up.

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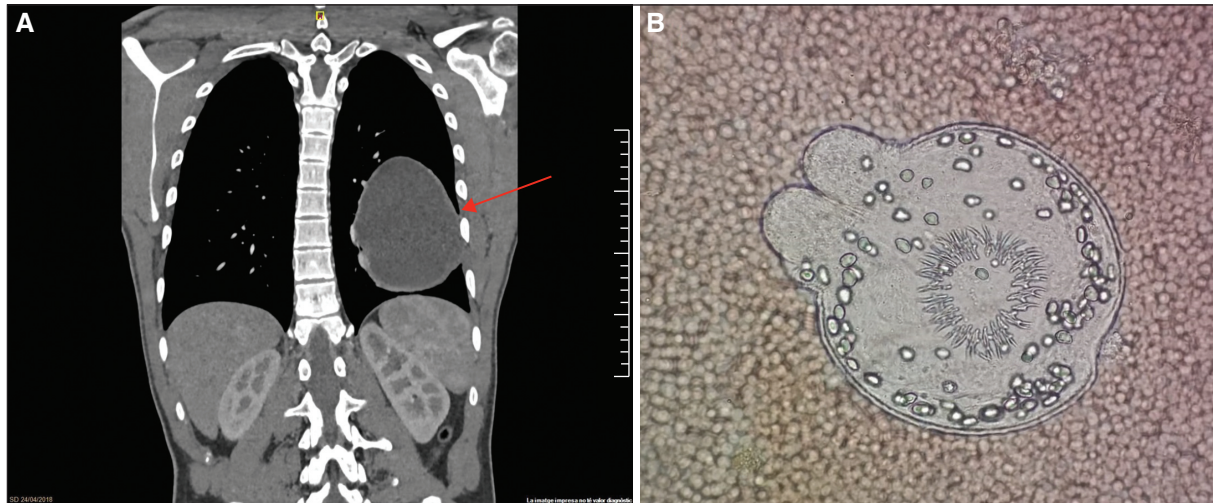


Figure 1. (A) Computed tomography of the chest with the hydatid cyst in the left lung (arrow). (B) *Echinococcus granulosus* protoscolex in the cystic content observed under the microscope at 400x magnification (surrounded by many red blood cells).

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Reference

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