Hepatic alveolar echinococcosis

Olivier Detry\textsuperscript{a,b}, Nicolas Meurisse\textsuperscript{b,c}, Jean Delwaide\textsuperscript{b,c}, Jean-Baptiste Giot\textsuperscript{b,d}, Philippe Leonard\textsuperscript{b,d}, Bertrand Losson\textsuperscript{b,e}, Marie-Pierre Hayette\textsuperscript{b,f}, Noella Bletard\textsuperscript{b,g}, Paul Meunier\textsuperscript{b,h} and Pierre Honore\textsuperscript{a,b}

\textsuperscript{a}Department of Abdominal Surgery and Transplantation, CHU Liege, University of Liege (CHU-ULg), Liege, Belgium; \textsuperscript{b}Multidisciplinary Unit for Echinococcosis Management and Research of the University of Liege (Echino-Liege), University of Liege, Liege, Belgium; \textsuperscript{c}Department of Hepatogastroenterology, CHU Liege, University of Liege (CHU-ULg), Liege, Belgium; \textsuperscript{d}Department of Infectious diseases, CHU Liege, University of Liege (CHU-ULg), Liege, Belgium; \textsuperscript{e}Laboratory of Parasitology and Pathology of Parasitic Diseases, Faculty of Veterinary Medicine, University of Liege (ULg), Liege, Belgium; \textsuperscript{f}Department of Microbiology, CHU Liege, University of Liege (CHU-ULg), Liege, Belgium; \textsuperscript{g}Department of Pathology, CHU Liege, University of Liege (CHU-ULg), Liege, Belgium; \textsuperscript{h}Department of Radiology, CHU Liege, University of Liege (CHU-ULg), Liege, Belgium

A 79-year old female patient with past history of breast adenocarcinoma underwent an abdominal computed tomography (CT) for asthenia and nausea. This CT demonstrated three separate hepatic lesions that were in large part necrotic, with peripheral calcifications and slow heterogeneous contrast uptake (Figure 1). Diagnosis of hepatic alveolar echinococcosis (AE) was made based on CT imaging and positive serology for \textit{Echinococcus multilocularis}. The patient was treated with albendazole 800 mg per day for two months before undergoing hepatic surgery allowing radical resection of all lesions. Macroscopically, the resected tissue showed white masses (Figure 2) with irregular multilocular, necrotic and cystic cavities (Figure 3). Pathology confirmed the diagnosis of AE. The patient refused postoperative treatment with albendazole due to side effects. She was well one year later, without evidence of AE recurrence, and a progressive decrease of anti-echinococcosis antibody levels.

AE is a severe parasitic zoonosis caused by \textit{E. Multilocularis} cestode worms. AE is described in the northern hemisphere, and local cases have been described in Wallonia \cite{1,2} where up to 50\% of the red foxes are infected \cite{3} and where dogs might also be infected \cite{4}. More than 15 local cases were treated at the CHU Liege these last 15 years. Association of radical surgery and albendazole (10 mg/kg in two daily doses) for two years is recommended in operable patients, and life-long albendazole is necessary in patients in whom radical surgical resection of all parasitic lesions is not
possible [5,6]. Prevention consists of avoiding eating fresh vegetables or fruits that grow at less than 50 cm from the ground, and avoiding contact with wild foxes and dogs. Vegetable cooking (at least 10 min at 60°C, 5 min at 70°C, or 1 min at 100°C), but not freezing, is efficient to inactivate the eggs (oecospheres).

Disclosure Statement

No potential conflict of interest was reported by the authors.

References


