

Severe multiorgan echinococcosis in patient hospitalized in Poznan Tropical Center

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INTRODUCTION. Cystic echinococcosis (CE) is distributed on all continents except Antarctica and affects around 2 million people in the world. Highest incidence is observed in rural parts of South America, eastern Africa, Middle East and Mediterranean regions. The disease is caused by Echinococcus granulosus sensu lato, which parasitizes in small intestines of canines, mostly dogs. On the basis of predilection to different intermediate hosts, E. granulosus sensu lato is divided into 10 genotypes, among which G1 (sheep strain) is responsible for 90% of all human invasions and G7 (pig strain) is the leading cause of CE in Central and Eastern Europe. The invasion of E. granulosus in human results in forming a hydatid cyst in internal organs, mostly liver. The main reasons for which cystic echinococcosis may constitute a clinical challenge are: (i) long incubation period and asymptomatic course of disease, (ii) unspecific symptoms being a consequence of extrahepatic locations of cyst which includes lungs, spleen or central nervous system and (iii) imperfections in diagnostic methods. As a result, delay in establishing the final diagnosis and starting the antiparasitic treatment may lead to severe clinical complication, for example: uncontrolled rupture of the cyst and secondary echinococcosis.

MATERIAL AND METHODS. We present the case of 33 year old male patient whose first symptoms were sharp pain in left side of the trunk and dyspnea and occurred in October 2016. Due to unsuccessful series of treatment with amoxicillin and clarithromycin ordered by family doctor, in February 2017 X-ray and computed tomography of chest were performed. They revealed 120 mm cyst in lower lobe of the left lung and 2 cysts in the liver (85 mm lesion on the border of VII and VIII segment and 66 mm lesion in V segment) which was the reason for hospitalization in Dolnośląskie Centrum Chorób Płuc we Wrocławiu. After series of diagnostic procedures including bacterial and fungal culture and cytological examination of bronchial lavages, the cystectomy was performed. Histopathological examination revealed protoscolices and hooks of Echinococcus granulosus and treatment with albendazole was started. During hospitalization of the patient in the Clinic of Tropical and Parasitic Diseases in Poznan in July 2017 USG guided fine needle biopsy of the bigger liver lesion was performed. Microscopic examination of cyst content confirmed the presence of protoscolices and hooks of E. granulosus. Serological ELISA and Western blot tests for antiparasitic IgG were positive. Due to size of cyst, the decision of total removal of both cyst was made. The surgery was successfully performed in October 2017 in Klinika Chirurgii Ogólnej, Naczyniowej i Onkologicznej in Szpital Czerniakowski in Warsaw.

CONCLUSION. Cystic echinococcosis may have severe clinical course and should be included in differential diagnosis of lesions in internal organs.