

Submental hydatid cyst in 16 year-old girl

Case Report

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Abstract:

Hydatid cyst in the head and neck region is a very rare even where the echinococcus infestation is endemic. The diagnosis is quite challenging. We report the case of a 16-year-old female patient presenting with a hydatid cyst in the submental region. The diagnosis of hydatid cyst is made mainly with the help of imaging methods and review of the patient's history. The diagnostic use of fine-needle aspiration biopsy generally has not been advised because of the potential to precipitate acute anaphylaxis or to spread a daughter cyst. Treatment is surgical albendazole therapy is suggested especially when there is perioperative contamination risk.

Keywords: Hydatid cyst; Submental cyst; Echinococcus

Introduction

Hydatid disease is a cyclozoonotic infestation caused most commonly by *Echinococcus granulosus*. The dog and other canine species are primary hosts while sheep, cattle, horses and occasionally humans are intermediate hosts. Humans usually contract the disease in childhood or adolescence by ingesting ova shed in faeces of infected dogs. *Echinococcus granulosus* is spread almost all over the world, especially in areas where sheep are raised, and is endemic in Asia, North Africa, South and Central America, North America, Canada and the Mediterranean region. In many countries, hydatid disease is more prevalent in rural areas where there is a closer contact between people and dogs and various domestic animals which act as intermediate vectors. Hydatid disease remains frequent and endemic in Tunisia.

Cystic hydatid disease usually affects the liver (50–70%) and less frequently the lung, the spleen, the kidney, the bones, and the brain [1–3]. Liver hydatidosis can cause dissemination or anaphylaxis after a cyst ruptures into the peritoneum or biliary tract. Infection of the cyst can facilitate the development of liver abscesses and mechanical local complications, such as mass effect on bile ducts and vessels that can induce cholestasis, portal hypertension, and Budd-Chiari syndrome [4]. The occurrence of hydatid cysts in the head and neck is rare even in countries where echinococcus infesta-



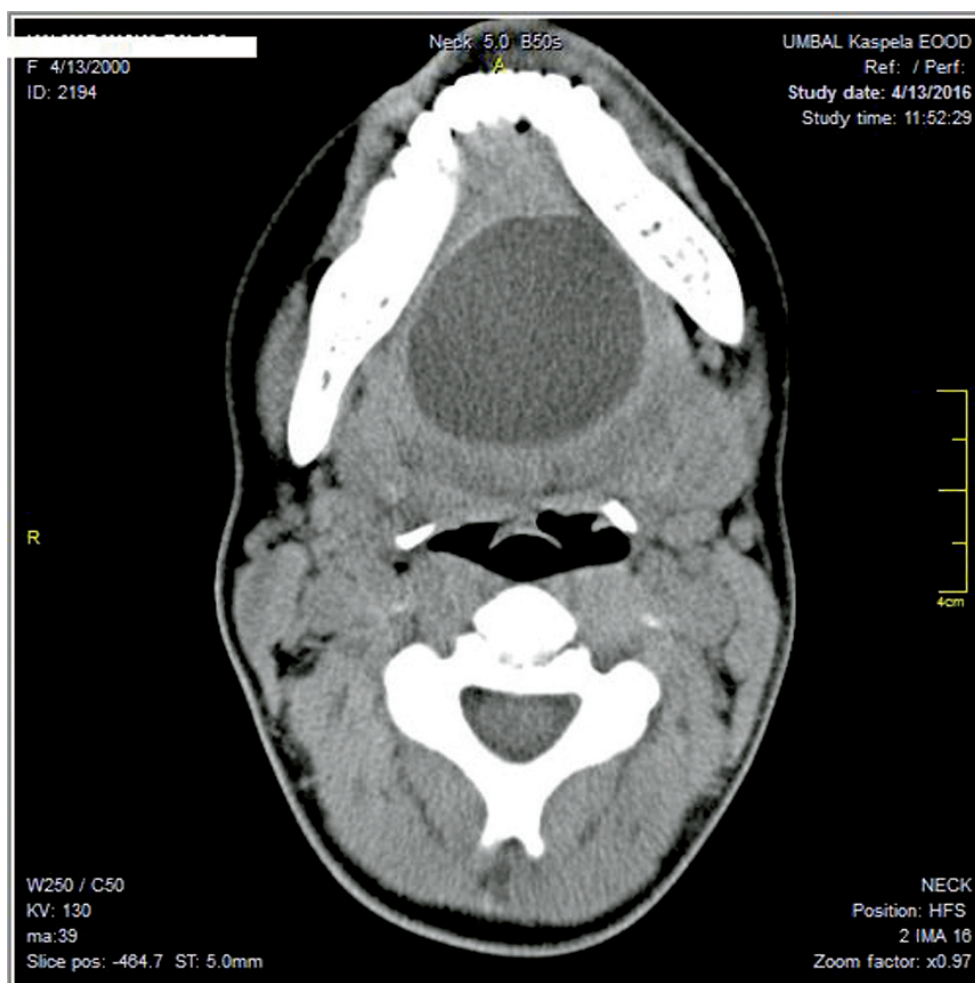
tion is endemic. Hydatid cysts involving the parotid region, parapharyngeal space, infratemporal fossa, maxillary sinus, and pterygopalatine fossa as well as the anterior or posterolateral cervical region have been reported in the literature.

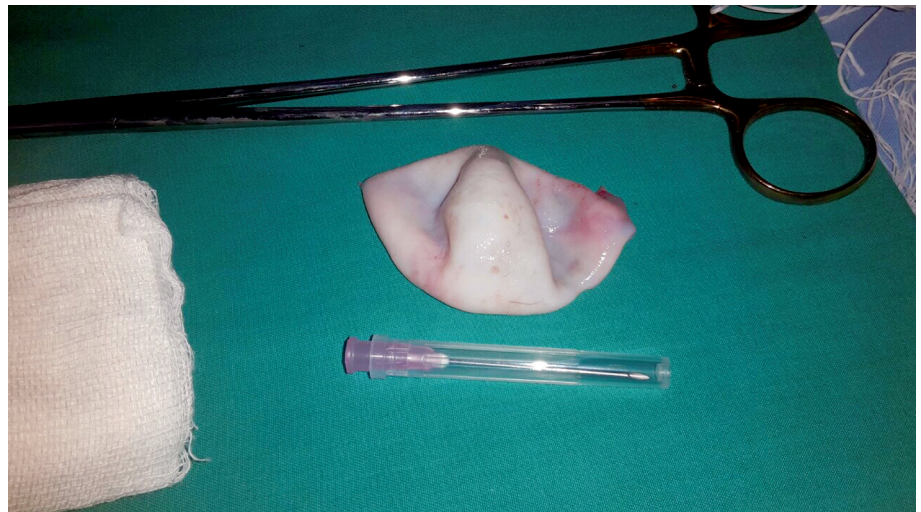
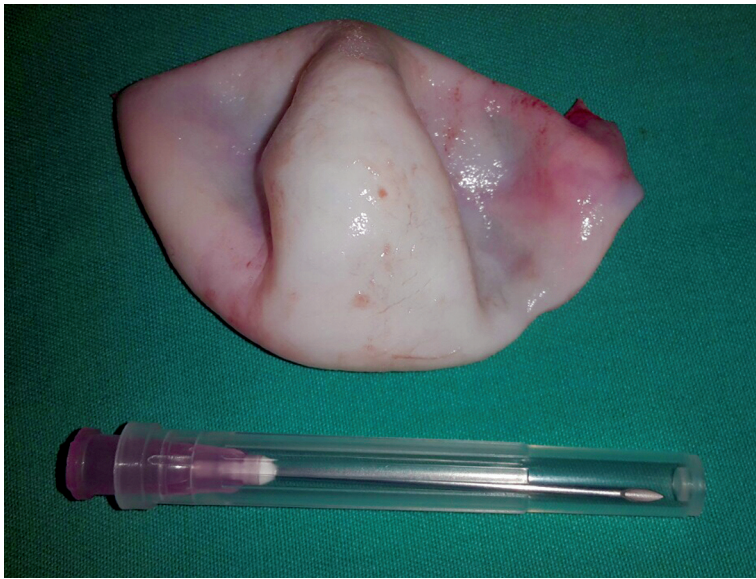
Case Report

A 16-year-old girl presented in the clinic with a slow growing painless swelling located in the submental region for the last year. She had no other symptoms and complains. On physical examination, a non-tender cystic mass 4,6 cm x 4,7 cm was present over the submental region of the neck. On CT scan examination of the submental region of the neck, there was cyst 4,6 cm x 4,7 cm size with a clear fluid content. The abdominal ultrasonography and chest X-ray were performed. Chest X-ray

was normal on the abdominal ultrasonography had found a small cyst in around 1,5 cm. Albendazole chemotherapy (10 mg/(kg day)) was given for a week then surgery was planned.

Under general anaesthesia, neck exploration was done. The swelling was found to be located in the submental triangle beneath the mylohyoid muscle. Following the protection of surrounding structures by packing all around with sponges soaked in povidone iodine, cyst decompression was done using syringe-needle which revealed crystal clear fluid. Daughter cysts along with the germinative membrane were evacuated from the cyst cavity following cystotomy. Postoperatively, albendazole chemotherapy (10 mg/(kg day)) was continued for 3 weeks. She had a fast recovery. After the discharge was referred to gastroenterologist to be followed up.





Discussion

Although in Bulgaria it is not unusual to see hydatid cysts in common locations, such as the liver and lung, they are rare in the head and neck region. Only a few case reports are found in the literature. After infection with *Echinococcus granulosus*, humans are usually asymptomatic for a long time. The growth of the cyst in the liver is variable, ranging from 1 mm to 5 mm in diameter per year. Most primary infections consist of a single cyst, but up to 20%–40% of infected people have multiple cysts. The symptoms depend not only on the size and number of cysts, but also on the mass effect within the organ and upon surrounding structures. Today, the diagnosis of hydatid disease has been greatly facilitated with the use of USG, CT, and

magnetic resonance imaging. USG, which demonstrates the hydatid sands in purely cystic lesions as well as floating membranes, daughter cysts, and vesicles most clearly, is the method of choice for searching for the pathognomonic criteria of the hydatid cysts.

Magnetic resonance imaging appears to be the most useful imaging technique when a complex or solid pattern is present. Imaging remains more sensitive than serodiagnosis, and a characteristic USG or CT examination visualizing cystic masses by demonstrating internal septae and daughter cysts in the presence of negative serologic results should still suggest the diagnosis of echinococcosis.

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