

Primary hydatid cyst of the sternocleidomastoid muscle: Unusual location

Sir,

Hydatid disease (HD) is an infection caused by *Echinococcus granulosus*. Humans are usually infected by foods contaminated with dog feces that contain the parasite's eggs. If the embryo enters greater circulation, it can access many organs and develop there, particularly the liver (65%) and lungs (25%).^[1] If the embryo enters greater circulation, it can access many organs such as the kidney, spleen, brain, heart, bone, orbit, and muscle and develop there.^[2] Very few cases of HD in the head and neck region have been reported. In this letter, we present a hydatid cyst located in the posterior border of the sternocleidomastoid (SCM) muscle.

In October 2020, a 46-year-old man presented to our clinic with a 1-year history of a mass in the supraclavicular region in the posterior border of the SCM muscle accompanied by pain. The patient had a history of mental retardation and seizures from birth. Six years ago, due to hydrocephalus and uncontrollable seizures, a ventriculoperitoneal shunt was placed for the patient. Physical examination revealed a congenitally mental retarded man with a 2.5 cm × 2.5 cm swelling in the posterior border of SCM muscle that was relatively hard, cystic, and mobile [Figure 1a].

At first, the neurosurgeon became suspicious of shunt dysfunction or infection; however, the patient did not have a fever, loss of consciousness, nausea, or vomiting. It should be noted that his hemogram was normal, and there was no leukocytosis.

Then, spiral multislice computed tomography (CT) scan of the neck with contrast showed a hypodense lesion with peripheral enhancement in the size of 39 mm × 62 mm with floating membranes in the right posterior cervical space, which was suggestive of hydatid cyst [Figure 1b and c]. Further investigation by chest and abdomen CT scan revealed no other mass or cyst.

Based on the findings, it was decided to remove the cyst surgically. After preparing the patient for the operation, we cut through the skin with the oblique incision in

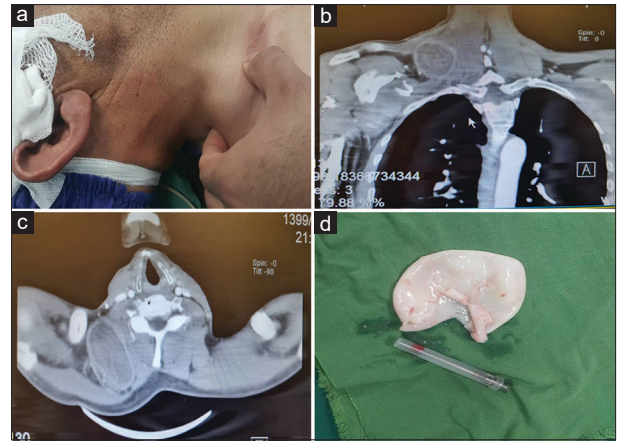


Figure 1: Primary hydatid cyst in the posterior border of the SCM muscle. (a) Cystic and mobile mass of patient's neck. (b) Computed tomography of the neck, coronal view. (c) Computed tomography of the neck, axial view. (d) Gross specimen of hydatid cyst. SCM = Sternocleidomastoid

the posterior border of the SCM muscle and push the muscle aside to expose the cyst. After the cyst was removed and the operation was terminated [Figure 1d]. Pathohistological sections showed cyst wall composed of an outer laminated layer and inner germinal layer surrounded by a fibrous capsule. Eventually, the patient was discharged with the satisfactory condition.

Knowledge of the patient's medical history, occupation and residence can place hydatid cyst among our differential diagnoses. Today, however, the advent of imaging facilities such as ultrasound, CT scan, and magnetic resonance imaging (MRI) has made the diagnosis of hydatid cysts much easier. Floating membranes, daughter cysts, vesicles, and the hydatid sands in purely cystic lesions are well shown on ultrasound.^[3] The best modality for diagnosing calcification of the cysts is CT scan. From that side, central nervous system hydatid cysts and complex or solid patterns are well detected by MRI.^[4]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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