



A Case of Hydatid Cyst with Primary Paraspinal Muscle Involvement

Primer Paraspinal Kas Tutulumu Olan Bir Kist Hidatik Olgusu

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To the Editor;

A 41-year-old female patient was admitted to our clinic with a 3-month history of back pain. The pain was mechanical and there was no concomitant numbness or neuropathic pain such as tingling. The patient had no history of trauma, surgery, chronic illness or infection, and had not benefited from pain relief and myorelaxant drugs. On the physical examination, there was seen to be forward posture and tenderness in the paravertebral area of the back. Active myofascial Pain syndrome could not be detected. Sensory and motor functions were normal in the upper extremity and deep tendon reflexes were normoactive. A direct radiograph of the cervical and thoracic region revealed flattening of the cervical lordosis and an increase in thoracic kyphosis. In addition, mild degenerative changes were observed. The patient, who was followed-up with recommended exercise therapies to correct postural disorder, presented again after 1 month because of increased pain. Magnetic resonance imaging (MRI) of the back area was performed for further examination. At the level of the C7-T1 vertebrae, a lesion with a mass of approximately 3x2 cm was localized at the midline. A cystic lesion showing hypointensity on T1-weighted sequences and hyperintense septation on T2-weighted sequences was diagnosed as hydatid cyst (Figure 1, 2). Biochemical analysis revealed no leukocytosis and no eosinophilia. CRP was normal. The indirect hemagglutination test for the diagnosis of hydatid cyst was positive. Abdominal ultrasonography and conventional chest radiographs were requested to rule out possible liver or lung involvement. As no pathology was detected in the liver and the lungs, the patient was diagnosed with hydatid cyst with primary muscle involvement. The patient was referred to the Neurosurgery Clinic for surgical treatment and cyst excision surgery was performed. Albendazole 200 mg 2x1 treatment was given for six months after surgery. No new focus or recurrence was observed during follow-up.

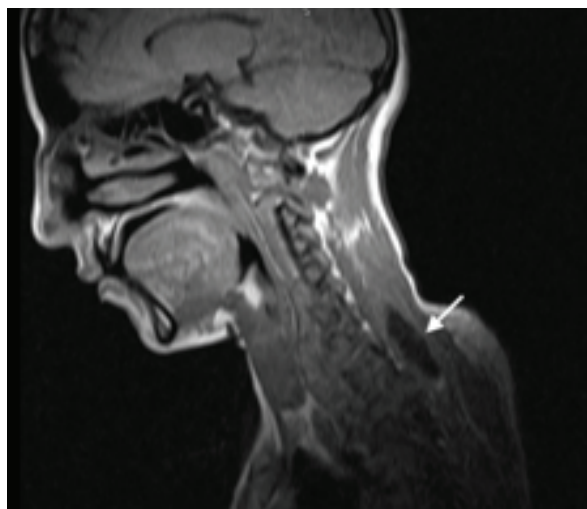


Figure 1. Cystic lesion showing hypointensity on T1-weighted sequences

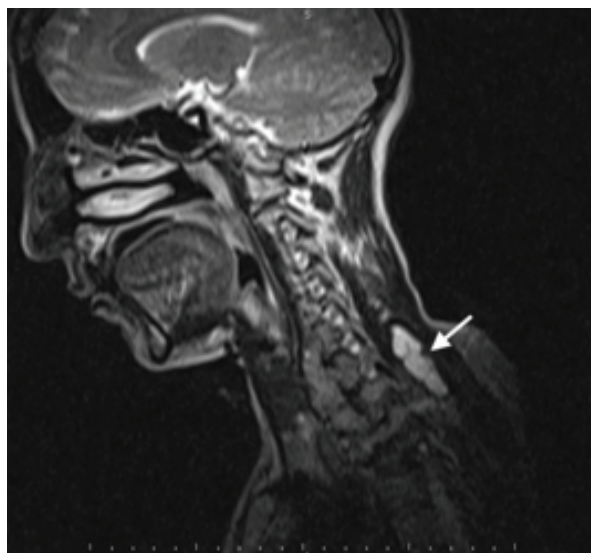


Figure 2. Hyperintense septation on T2-weighted sequences

A hydatid cyst is a parasitic infection caused by the larval stage of *Echinococcus granulosus* and *Echinococcus multilocularis*, usually involving the liver, lungs, and brain (1). Echinococcosis has a worldwide distribution and causes health problems in endemic countries such as Australia, Argentina, Africa, the Middle East and the Mediterranean region (2). Hydatid disease rarely affects soft tissues even in endemic areas, and skeletal muscle involvement is extremely rare, with a reported prevalence of 0.5-4.7% (3). The pathogenesis of muscle involvement is not clearly understood. While some authors claim that it is through direct implantation, most authors believe the embryo can reach the muscles from the systemic circulation after leaving the intestine and passing through two filters: the liver and the lungs (4).

Hydatid cysts usually occur in liver and the lungs, but may localise in any area of the body (4). Since muscle involvement of hydatid disease is rare, our knowledge is limited to case series. Gedik et al. (4) presented a 20-year-old male patient with paravertebral hydatid cyst. Bagcier et al. (3) diagnosed a hydatid cyst in the gastrocnemius muscle of a 40-year old male patient. Both patients underwent surgical excision and medical treatment as in the current patient, and none have relapsed (3,4). Saad et al. (5) presented three hydatid cysts with psoas muscle involvement and Tyagi and Garg (2) reported a hydatid cyst in the brachialis muscle. Bilgic et al. (6) presented a case with paraspinal muscle involvement but used the puncture, aspiration, injection, re-aspiration technique instead of surgery. Musculoskeletal hydatid cyst diagnosis is clinically and radiologically difficult as it resembles a soft tissue tumor. Ultrasonography, computed tomography and MRI have a valuable role in the radiological diagnosis and follow-up of hydatid disease (3). Hydatid cyst should be considered in the

differential diagnosis of soft tissue tumors, especially in areas where hydatid cyst is endemic. In addition, in the differential diagnosis of back pain resistant to medical treatment, muscle involvement of hydatid cyst should be considered.

Keywords: Cyst, back pain, magnetic resonance imaging

Anahtar Kelimeler: Kist, sırt ağrısı, manyetik rezonans görüntüleme

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