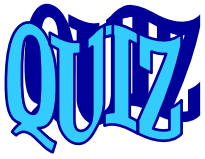

Salman Yousuf Guraya FRCS

Case History

A 34-year-old female presented with a slowly growing painless lump on the right buttock, of 2-year duration. Examination revealed an afebrile woman with a non-tender, fluctuant lump with normal overlying skin, measuring about 15X10 cm. Rest of the clinical examination was unremarkable. Laboratory tests showed mild eosiniphilia with normal hemoglobin and ESR. The CT image is shown (**Figure 1**). The lump was completely excised under general anesthesia (**Figure 2**). The histological report is shown in (**Figure 3)**.

What is the most probable diagnosis?

Answer on the next page.

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Figure 1

Figure 2

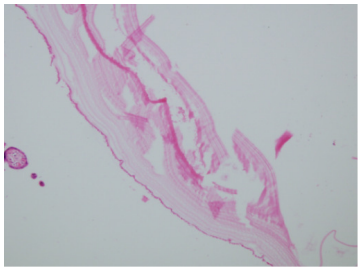

Figure 3

There are various causes of painless lumps in the body including lipomas, giant fibromas, and other cutaneous lesions. One of the extremely uncommon lesions that one can imagine is *echinococcus affection of the skin and underlying dermal layers. Echinococcosis and/or* hydatidosis are one of the most important zoonotic diseases in the world, caused by *Echinococcus granulosus.* Humans contract the disease from water or food or by direct contact with dogs. Once the eggs reach the stomach, the hexacanth embryos are released. These pass through the intestinal wall and reach the tributary veins of the liver where they undergo a vesicular transformation and develop into hydatids[1]. Hydatid cysts are commonly reported in liver but other parts of the body like spleen[2], lungs[3], seminal vesicles[4], preauricular areas[5], cerebral[6], and thymus[7] have also been reported in the literature.

The diverse presentations of hydatid disease depends on the organ affected; jaundice and hepatomegaly, splenomegaly, hemoptysis, convulsions, cystic skin swelling, and colonic obstruction. Diagnosis of an intact echinococcal cyst is usually based on a suspicion resulting from an unexpected finding on routine X-ray. Radiographically, the cyst appears as a homogeneous spherical opacity with definite edges. CT scanning and magnetic resonance imaging have added to the diagnosis of hydatid disease of the lung[3]. Serological tests are based on the reaction and precipitation between the test antigen and the circulating antibodies in the host. The sensitivity and specificity of available tests depend on the quantity of antigens. Serological tests use partially purified hydatid antigen or antigen 5[7]. Complement fixation, hemogglutination, latex agglutination, and bentonite flocculation test are also available[8]. On histologic examination, multiple scoleces are seen adjacent to a thick, acellular, amorphous membrane that represents the wall of the cyst.

Antihelmintic agents have been used in the treatment of systemic echinoccosis in endemic areas[7]. These agents can reduce the size of cysts in some cases, however the results are not satisfactory and this treatment should be limited for disseminated and recurrent cysts or in cases where surgery is contraindicated. Per operatively, puncture of cyst is contraindicated because of potential complications such as anaphylactic shock and spread of daughter cysts. Surgery remains the mainstay for the treatment of hydatid cysts[9]. Conventional open surgery, laparoscopic and recently, robotic surgery has been performed with promising outcomes[10].

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