

Hepatic hydatid cyst in a Turkana woman - case report

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SUMMARY

An unusual case of hepatic hydatid cyst in a 27-year old female is reported. The patient had abdominal distension of 10-year duration, pain, pallor of mucous membranes, and was grossly wasted. Ultrasonography revealed a large hydatid cyst that covered most of the abdomen. A successful surgical intervention was performed and 24 litres of hydatid fluid drained.

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Introduction

Hydatidosis or cystic echinococcosis (CE) due to infection with larval stages of *Echinococcus granulosus* is a major public health problem in many countries including Kenya [1]. The Turkana District in Northwestern Kenya has one of the highest recorded surgical incidence of CE in the world [2]. The Turkana people are nomadic pastoralists. They maintain large herds of goats, sheep, cattle and camels, which serve as intermediate hosts of the parasite. The disease can be found in any parts of the world where slaughtering practices allow dogs to consume the organs of infected animals [3].

The fully developed hydatid cyst of *Echinococcus granulosus* is typically unilocular and fluid-filled. Occasionally cysts in humans may develop daughter cysts within the primary cyst. These cysts may be found singly, in clusters, or in such numbers that they pack the peritoneal cavity. The leading sources of morbidity are location of cyst, pressure effects from cyst size, cyst rupture with subsequent anaphylaxis or dissemination of the infection [4]. Cystic lesions in the liver may cause pain and discomfort. The size of cysts in Turkana patients usually range from 5 cm to 12 cm in diameter, and contain 200ml to 1500ml of hydatid fluid. Over 70% of cysts are found in the right hepatic lobe [5]. We report an unusual case of hepatic hydatid cyst in Turkana female who had abdominal distension and pain of 10-year duration due to a 24-litre hydatid cyst.

Case report

A 27-year old Turkana woman (Figure 1) presented at AMREF's Hydatid Control Centre, Lopiding, Turkana, Kenya with abdominal distension and pain for a period of 10 years. She claimed that during that period, she had visited many traditional healers, ("Emorons") who unsuccessfully treated her. This was evidenced by many tattoos (marks) on her abdomen. She sought conventional treatment due to vomiting after every meal.

The patient had pale mucous membranes, and was grossly wasted on admission. However, other physiological parameters were within the normal range (temperature 37.5°C; pulse 70/min; respiration 22/min). Ultrasound examination was

performed with a real time B-mode scanner with a 3.5 MHz linear array transducer with electronically variable focus (Concept 2000, Dynamic Imaging, West Lothian, Scotland). Static images were recorded on a graphic printer (Sony Graphic Printer, model UP-850 Sony Corp., Japan). A large cyst (>180 x 159mm) with daughter cysts was noted (Figure 2). Surgery was performed under general anaesthesia and a total of 24 litres of hydatid fluid was drained.



Figure 1: 27-year old Turkana woman with 24L hydatid cyst

Discussion

Cystic Echinococcosis is a chronic process. The growth of hydatid cysts in humans is slow and variable, and the disease may not become manifest for several years after infection.

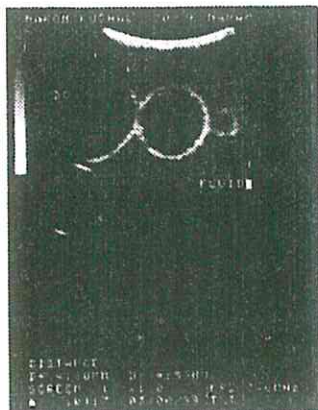


Figure 2: Ultrasound picture showing part of the abdominal hydatid cyst. DC = daughter cyst.

Often the condition is detected in humans as an incidental finding at autopsy, chest x-ray examination, or during mass ultrasound screening for hydatid cysts.

The repeated mass screening of liver cysts by ultrasound has been used to evaluate the rate of development in 66 human patients in Turkana. The study disclosed a high variability of cyst growth rate (6 - 15mm per year) and 11% showed rapid increase (average 31mm per year) with a maximum growth in 1 case of 160mm per year [6].

In Turkana hydatid patients the size of cysts range from 5 cm to 12 cm in diameter [5], while the cysts found in Turkana sheep and goats range from 2 cm to 9 cm [7].

If the cysts eventually cause pain or interfere with normal bodily functions, as was with the present case, medical help (when available) is generally sought. This is the largest hydatid cyst (>180 x 159 mm diameter) ever recorded in Turkana. Due to its large size, the cyst had caused pressure

atrophy of abdominal muscles and "scaled-off" the rest of peritoneal organs during surgery. Vomiting after every meal was most probably due to pressure on the stomach by the cyst. This case expresses the need for increased and improved provision of medical services among nomadic pastoralists, and strengthening of the hydatid control programme in Kenya.

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