# Rare Case Of Isolated Hydatid Cyst In Rectus Abdominis Muscle

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# Citation

S V, B BC, S S, M V. *Rare Case Of Isolated Hydatid Cyst In Rectus Abdominis Muscle*. The Internet Journal of Surgery. 2010 Volume 27 Number 1.

# Abstract

Only few cases of isolated hydatid cysts of muscles have been reported with cysts in thigh muscles, paravertebral muscles, arm and eye muscles. We are reporting a case of hydatid cyst affecting the rectus abdominis muscle diagnosed by ultrasound which was managed by excision. No earlier reports of isolated rectus abdominis muscle involvement by a hydatid cyst were found.

# INTRODUCTION

Hydatid cyst is a condition commonly affecting liver and lungs caused most commonly by Echinococcus granulosus. Muscular hydatid cyst is a rare entity accounting for 2 to 3% of cases usually associated with cysts in liver or lung.<sup>1</sup> Isolated muscular hydatid cyst is still rarer with few reported cases. We are reporting a case of isolated hydatid cyst in the right rectus abdominis muscle. No case of hydatid cyst in rectus is reported recently.

# **CASE REPORT**

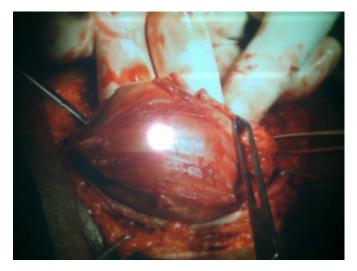
A 35-year-old female patient came with history of mass per abdomen below the umbilicus for 6 months. It was a painless mass gradually increasing in size over 6 months. No history of previous surgery or hospitalisation was present. On examination, a mass of 6 x 4cm was noted 7cm below the umbilicus, 4cm to the right of the midline. The swelling had smooth surface, regular margins, was firm in consistency and parietal in plane.

Blood investigations were normal. USG of the abdomen revealed a parietal wall cyst with cyst in cyst appearance. Other areas of the abdomen were normal.

Surgical excision was planned. On exploration, a smooth walled tense cystic swelling was noted in the right rectus abdominis muscle (fig. 1). The swelling was dissected and excised taking care not to puncture it during dissection. A drain was inserted. The wound was sutured in layers. On opening the cyst, multiple daughter cysts were noted (fig. 2). The specimen was sent for histopathology and diagnosis of hydatid cyst was confirmed.

# Figure 1

Figure 1: Tense cystic swelling in rectus abdominis



# Figure 2

Figure 2: Cyst opened showing multiple daughter cysts



The postoperative period was uneventful. Oral liquids were given to the patient 6 hours after surgery and a regular diet was started after 24 hours. Parenteral antibiotics were given for 2 days; the drain was removed after 3 days. The patient was started on albendazole 400mg BD and was discharged after 5 days. Follow-up up to 6 months postoperatively did not show evidence of a hydatid cyst in any part.

# DISCUSSION

Hydatid cyst is a zoonotic disease caused most commonly by echinococcus granulosus. This disease commonly affects liver (50–60%) and lungs (20–30%).<sup>2</sup> Muscular hydatid cyst is usually associated with a primary in these sites but several cases of isolated muscular hydatid cysts have been reported. These sites include adductor magnus, quadriceps femoris, paravertebral muscle, gracilis, psoas major, biceps and gluteus maximus.<sup>34,5,6,7</sup>.

The pathogenesis of isolated muscular cysts is debated, with some authors thinking it is due to direct inoculation and some authors thinking it spreads through systemic circulation bypassing the two barriers, that are liver and lungs.<sup>4</sup>

USG is the most common tool used to diagnose this condition with characteristic appearance and grading. CT and MRI may be used in atypical cases. FNAC may provide confirmative diagnostic information, but some consider the risk of spillage into another tissue plane during the procedure.

En-bloc resection alone is curative for isolated muscular hydatid cysts<sup>8</sup> but postoperative adjuvant therapy with albendazole is given especially if FNAC is been done to cover for possible spillage.

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