

Management of Ruptured Hydatid Cysts into the Peritoneum with acute peritonitis

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Introduction:

Hydatid disease is a parasitic infestation caused by *Echinococcus granulosus*. Hydatidosis is endemic in the Mediterranean region, including Tunisia. Although it can be found in all organs, it is mostly located in the liver. Patients with hydatid disease are mostly asymptomatic until complications occur. The perforation of the cyst into the peritoneal cavity. The rupture of a hydatid cyst into the abdominal cavity spontaneously or after trauma is a rare and serious complication may cause mild abdominal pain to fatal complications like anaphylaxis and acute peritonitis.

Methods

In this retrospective study, we evaluated ten patients who were surgically treated for ruptured hydatid cysts into the peritoneum at a university hospital in an endemic area between 2000 and 2015.

Results

There were three female and seven male patients, with a mean age of 32 years. Ruptured cysts were located in the liver in all cases. There were blunt abdominal traumas in two patients. Rupture was spontaneous in the remaining eight patients. Only two patients knew of their hydatid disease beforehand. Their presenting complaints were abdominal pain, nausea, vomiting, and urticaria. All patients had severe abdominal pain, except one patient who had mild abdominal pain. Seven patients with severe abdominal pain has signs of peritoneal irritation, with findings such as guarding and rebound tenderness at physical examination of the abdomen. During the preoperative evaluation, all patients underwent abdominal ultrasound. There was free fluid in the abdominal cavity in all cases. Computed Tomography was used in 9 patients and it was able to show localizations and perforations of the hydatid cyst in all patients: 6 cysts was located in hepatic doma (seg 7 and 8) and two cysts in left part and one cyst in segment 6. All patient underwent surgical. Serous fluid was noted, containing many daughter vesicles disseminated throughout the abdomen was observed in 2 cases; Seropurulent fluid and daughter vesicles was observed in 8 cases. The treatment of perforated cysts was radical in one patient and conservative in the other nine patients. The peritoneal cavity was washed with isotonic saline for 10 to 15 minutes. The common bile duct was explored, and a T-tube was inserted to decompress the biliary tree in two patients with associated cholangitis. Triple IV antibiotic therapy was indicated for all the patients: Penicilline, gentamycin and metronidazole. A bacteriologic study of peritoneum fluid showed *Escherichia COLI* in 4 cases, *Pseudomonas* in 2 cases. Mortality was seen in one patient who presented severe postoperative pneumopathy. There was postoperative morbidity in 2 patients: surgical site infection in one patient needing percutaneous drainage, an external biliary all patient was started on albendazole (10 mg/kg) for 8 weeks. One postoperative recurrence of disease was observed treated surgically.



Conclusion

Rupture of hydatid cysts into the peritoneal cavity should be included in the differential diagnosis of acute abdominal pain in endemic areas. Emergency surgery is the main treatment for intraperitoneal rupture of hydatid cysts and medical treatment should be given postoperatively.