

article

Complicated Liver Hydatid Cyst in Basrah

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Summary

Sixty six patients having complicated liver hydatid cysts were studied in three major hospitals in Basrah from the period 1990 to 2000. Age, sex and residency were studied beside the operative procedure, morbidity, postoperative course and mortality. The complicated cysts were managed according to the operative findings.

Jaundice with biliary communications was the commonest operative finding.

Five patients with biliary communication, who were treated by external drainage, have prolonged biliary fistula and were treated conservatively. The cases with intra-peritoneal rupture constitute a high number 10 cases (15%).

The aim of this study is to draw attention to the problem of complicated liver hydatid cyst for future prevention, early diagnosis and better treatment.

Keyword: Hydatid Cyst, Liver infection

Introduction:

Hydatid disease is an endemic disease in Iraq^{1,2}. It is characterized by frequent hepatic involvement which occurs in about 80% of the cases, hydatid cysts in the liver takes a long time to be evident clinically due to gradual increase in its size³. If the disease is not suspected and diagnosed early, these cysts might be complicated and lead to an increase in morbidity & mortality rates. One of the common complications of hydatid disease, is spontaneous rupture of the cysts into the biliary tree, which occurs in 5-10 % of cases and gives rise

to signs and symptoms simulating choledocholithiasis^{4,5,6,7,8,9}, or rarely of pancreatitis¹⁰. Other complications include intraperitoneal rupture, which might occur spontaneously or due to mild trauma leading to acute abdomen with or without urticaria¹¹. Also the cysts might rupture through the diaphragm producing empyema thoracic^{12,13}.

The aim of our study is to draw attention to the problem of complicated liver hydatid cyst for future prevention, early diagnosis and better treatment.

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Patients & Methods

A prospective study of 66 patients having complicated liver hydatid cysts in three major hospitals in Basrah (Basrah General Hospital, Althahr General Hospital & Saddam Teaching Hospital) was accomplished in the period 1990-2000., Data were recorded for each patient by using special form designed for the purpose of the study, including preoperative, operative & postoperative periods (Fig. 1). Preoperative investigations have been done to every patients including (F.B.S, B.Urea, S.Creatinine, C.B.P,

been done to every patients including (F. B. S, B. Urea, S. Creatinine, C. B. P, Bleeding, Clotting & Prothrombine time) beside other investigations. The patients were prepared well before the surgery especially the jaundiced patient who is put on intravenous fluid therapy. Broad spectrum antibiotics, mannitol & i.m vit. K daily until the prothrombine time become near the normal.

Name		Age	Sex	Address	new old
Place of birth		Occupation			
Date of admission		Date of discharge			
Clinical presentation		L.F.T., C X-Ray, Abdominal Ultrasound			
Investigations					
Pre operative finding					
Operative procedure					
Postoperative Course		<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> \swarrow \searrow </div> <div> Morbidity Mortality </div> </div>			

Fig. 1: Data form.

Results:

A total of 66 patients with complicated liver hydatid cysts were studied, twenty-six were males and forty were females as shown in fig.2.

Their ages ranged between twenty and sixty five years as demonstrated in fig.3.

Figure 4, showed that thirty-eight patients were living in rural areas while twenty-eight in urban areas. Table 1 display the common operative findings

Findings & the methods of treatment. Jaundice with biliary communication was the commonest operative finding. The postoperative complications commonly were wound infection followed by external biliary fistula as shown in table 2. Patients were followed for aperiod of 6 -72 months & no patient develop recurrence during this period.

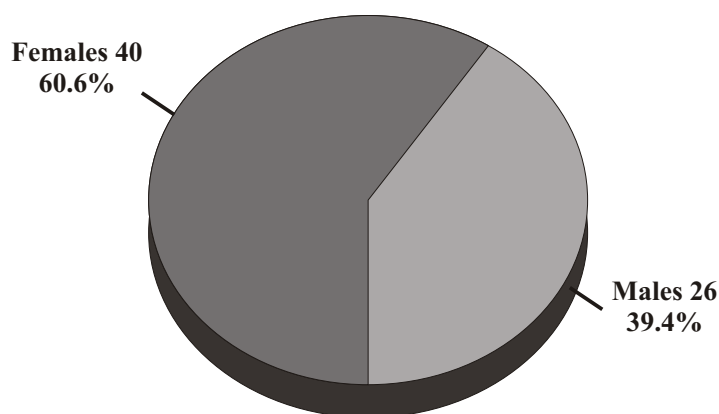


Fig.2: Sex distribution of the patients.

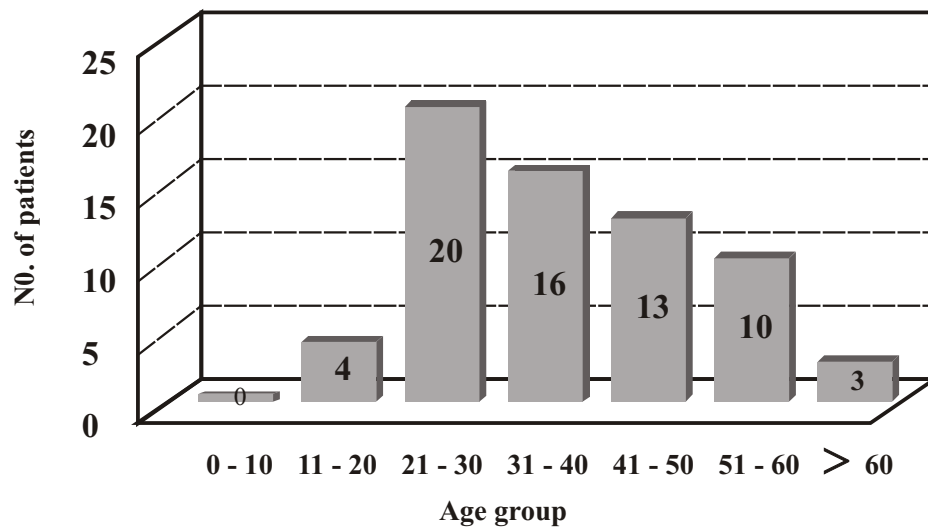


Fig.3: Age distribution of the patients.

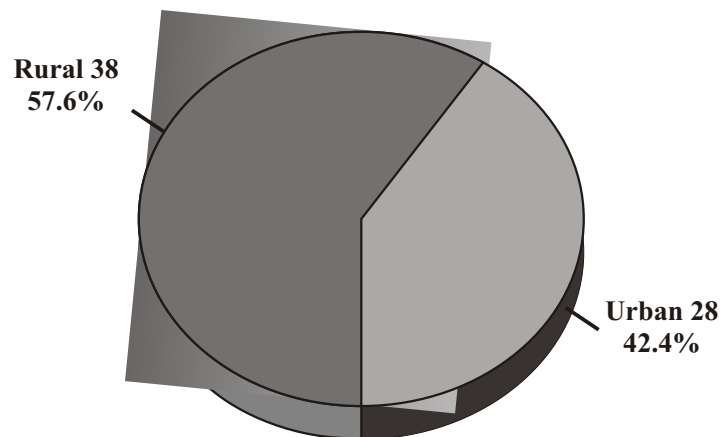


Fig.4: Residency of the patients.

OPERATIVE FINDING	N0.	OPERATION	N0.
Biliary communication with jaundice	26	A. Endocystectomy with C.B.D. exploration + T. Tube	12
		B. Endocystectomy with C.B.D. exploration + choledochoduodenostomy	9
		C. Endocystectomy with C.B.D. exploration + Trans-duodenal sphincteroplasty	5
biliary communication without jaundice	22	A. Endocystectomy + suture of communication + omentoplasty	11
		B. Endocystectomy + suture of communication + ext drainage	8
		C. Endocystectomy + int drainage	3
Intra-peritoneal rupture	10	Endocystectomy +peritoneal lavage with scolicide	10
Cyst Infection	8	Drainage	8

Table 1: Operative findings and types of operations

Post operative complication	N0.	Mortality
Wound infection	8	0
Chest infection	4	0
External biliary fistula treated conservatively and one case need trans duodenal sphincteroplasty	5	0
Intra-abdominal abscess	1	1

Table 2: postoperative morbidity and mortality

Discussion:

Hydatid disease is a major economic and public health problem in Iraq causing a great morbidity and mortality which attributed in most of the cases to the cyst complications^{1,2}. The highest incidence occurred in the ages between 20-50 years, which is similar to other studies^{3,8,11}. This is explained by the fact that these age groups are the most active worker group and most of their meals are from unhealthy sources outside their home. Females were affected more than males probably because in the rural area, females usually their job involves dealing with animals and they do not care to disinfect their contaminated food & vegetable. The complicated cysts were managed according to the operative findings. In cases of intra-biliary rupture with jaundice, after we managed the cyst, the common bile duct managed according to the degree of dilatation. In minor dilatation, T- tube was put after exploring the common bile duct, in-patients with major dilatation choledochoduodenostomy or sphincteroplasty was done. Patients with biliary communication without jaundice in which we can not close the opening of communication, internal drainage done. Five patients with biliary communication who were treated by external drainage, have prolonged biliary fistula and were treated conservatively. Only one case needed re-operation with trans-duodenal sphincteroplasty. Suppuration is the third most common complication in this study while it is the second in other studies^{14,15}. One

other studies^{14,15}. One patient with infected hydatid cyst developed intra-abdominal abscess and required re-operation was died from septicemia in the 19th post operative day.

The cases with intra-peritoneal rupture constitute a high number (10 cases 15%) compared with other study¹⁶, therefore should be included in the differential diagnosis of acute abdomen. Absence of U/S examination at night made the diagnosis more difficult pre-operatively. Measures to decrease cyst recurrence in the abdomen like peritoneal lavage with scolical agent & long term treatment with Albendazole were done.

The low morbidity and mortality rate in our study proves that our surgical treatment of complicated hydatid disease inspite of major difficulties & shortage of facilities imposed by embargo is satisfactory.

References:

- 1- Asakkal N. Human hydatid disease in Mosuil . Iraqi Med. J. 1982; 29:80-86.
- 2- Mohmood S. Al Janabi BM. Hydatid disease in children & youth in Mousil, Iraq . Annals of tropical Med. 1983;77:237-38.
- 3- Lofti. M and Hashemian. H. Hydatid cyst diseases of the liver and its treatment Int. Surg J. 1973; 58:166-169.
- 4- AL - Hashimi H. M. Intrabiliary rupture of hydatid cyst of the liver Br. J.Surg.1971; 58, 228-231.
- 5- Atlas. D. H and Kamenar H . Rupture of echinococcus cyst into bile ducts simulating

- stones in the common bile duct Am. J Med. 1952; 13, 384-392 .
- 6- Harris J.D. Rupture of hydatid cyst of the liver into the biliary tract. Br. J Surg. 1965; 52, 210-212.
 - 7- Kattan Y. B. Intrabiliary rupture of hydatid cyst. Br. J Surg. 1975; 62, 885-890.
 - 8- Raja. M; Hazim. H. S Rupture of hydatid cyst of the liver into the biliary tract. Br. J. Surg .1987; 65, 106.
 - 9- Macris. G. J and Galanis N. N. Rupture of the echinococcus cyst of the liver into the biliary ducts. Am. J. Surg .1966; 32,36,44.
 - 10-Ovant A. et al. Acute cholangitis caused by rupture hydatid cyst. Surgery. 1984; 95:497.
 - 11-Langer JC, Rose DB, et al: Diagnosis and management of hydatid disease of the liver. A 15 - year North American experience. Ann Surg 199-412 J984.
 - 12-Benyan AK. Mahdi NK. Pulmonary hydatidosis in man and his life stock in southern Iraq. Saudia Med. J. 1987; 8(4): 403-6.
 - 13-Hicken NF. James M. Jone HC. Frank M. Echinococcosis of the liver and lungs. Am J. Surg 1966; 112:823-830.
 - 14- Branum GD, Tyson GS: Hepatic abscess; changes in etiology, diagnosis and management. Ann surg. 1990; 212: 655.
 - 15-McDonald Ap, Howard RJ: Pyogenic liver abcess, world J. Surg. 1980;9:369.
 - 16-Moreno Gonzalez E, Rico selas P. Results at surgical treatment of hepatic hydatidosis: current therapeutic modifications, world J. Surg. 1991;15;254.