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Surgical Techniques Performed in Hepatic Hydatidosis in Libya: An Endemic Area

Ali Ibrahim Yahya*, R.K. Bhatnagar**

*Senior Surgeon, Zliten Medical College and Hospital, Libya.

**Professor, Department of Pathology, Gold Field Medical College, Faridabad

Abstract

Hydatid disease is common in Libya. Here we operated 400 cases of hepatic hydatid cysts from 1991 to 2013. We performed various surgical techniques from simple drainage to segmental resection depending upon extent of disease. Recurrence was more with drainage only which is very well known.

Keywords: Ecchinococcus granulosus; hydatidosis; endemic area; captonrage; CBD; t tube & intuition.

Introduction

Hydatid cyst (ecchinococcus granulosus), though worldwide is common in middle east & surrounding area due to food habits. The parasite is acquired from cattlles, goats, camels, dogs etc. To human beings & is a space occupying lesion. It can involve any visceral organ but more commonly lungs, liver & spleen are involved. Surgery followed by medical treatment is the only line of action.

Materials & Methods

Files of 420 operated diagnosed cases of hydatidosis & admitted in surgery department, Zilten Hospital, Libya were reviewed retrospectively from 1991 to 2013. There were 270 males & 150 females. Age ranged from 4 years to 80 years. Patients presented with vague abdominal pain, abdominal mass, jaundice etc. All patients had routine investigations of complete blood count, lft, chest x-ray etc. The diagnosis of hepatic hydatidosis was confirmed by USG & CT-scan. 67 cases underwent emergency surgery varying from "acute abdomen", ruptured cyst, obstructive jaundice, liver abscess etc. Others had planned surgeries under ga, through right subcostal incision. Different surgical techniques were used according to cases. All precautions were taken to avoid spillage of the cyst contents. All cases were given antibiotic cephalosporin & metronidazole. Also we routinely gave 200mg hydrocortisone at induction of anaesthesia to avoid anaphylaxis. USG was used during surgery as we were able to see followings:

1. Numbers of cysts.
2. Depth of cyst in liver.
3. Relation of large vessels with cyst.

Results

Techniques used for surgery for hepatic hydatidosis are summarised below in tabular form:

Corresponding Author:Dr. R.K. Bhatnagar, Professor, Department of Pathology, Gold Field Medical College, Faridabad

E-mail: jharna_bhatnagar@yahoo.co.in

Procedure	No. of cases
E xcision of the cyst with t u bal drainage	109
Excision of the cyst with captonrage	280
Segmental liver resection	5
Excision of the cyst with intuition	4
Excision of the cyst with closer of the cyst by diaphragmatic flap	1
Excision of the cyst with CBD exploration through CBD wall & t. tube	12
Excision of the cyst with bile exploration through communication of bile duct with the cyst	24
Excision of the cyst with on table ERCP	2
Excision of the cyst with post operative ERCP for bile leak	8
Excision of the cyst & packing it with omentum	10

Discussion

Hepatic hydatid (ecchinococcus granulosus) is common in Libya - an endemic area. The presenting complaints being-abdominal pain, abdominal mass, obstructive jaundice, liver abscess, acute peritonitis from intraperitoneal rupture, chest symptoms due to rupture of cyst into pleura,skin rash with abdominal pain due to anaphylaxis of ruptured cystic fluid in abdomen etc. These could be acute or non-acute symptoms. Acute illness described above needs urgent surgical intervention while other cases are well planned for surgery

In our series:

1. Opening of cyst: When it is infected,or deep in the liver, removal of endocysts or daughter cysts, fibrinous exudate, washing of cavity with providone iodine & putting tube drain in the cyst cavity.
2. Cysts with big cavity were plugged by omentum,however not practiced much in our series.
3. Cyst opened, removal of endocyst daughter cysts when the pericystic tissue collpse, the cavity is closed by bursting from inside upwards till the cavity gets completely closed –known as capitonage.
4. Cysts which are on the edges of right or left lobe are excised with endocysts & edges of cyst cavity is translocated & fixed –one edge to inner cyst & the other edge to outer of cyst called intortion.
5. Cysts distorting part of right or left lobe,segmental resection of part of liver with cyst is done (lobectomy).
6. Cysts impinging on diaphragmatic surface, after excision are plugged by diaphragm to close the cavity.
7. Those patients with ruptured cyst into the common bile duct excision of cyst and cyst cavity was done to close capitonage common bile duct which was opened to clear the duct from daughter cyst-membrane (CBD exploration) and T. tube was inserted in CBD.
8. Cyst with big communication with common bile duct after removal of endocyst daughter cyst. CBD is cleared by trans communication exploration of CBD by fog artery catheter.
9. Hydatid cyst presented by obstructive jaundice where we do ERCP before to relieve the obstruction than followed with in the same admission excision of daughter cysts.
10. In patients who did not have ERCP before surgery we did not do ERCP after excision of hydatid cyst.

Conclusion

Hydatid disease, so, endemic in Libya and Egypt is a space occupying lesion in liver and surgical intervention is a safe, sure and short

cut with medical care for patients is beneficial (pre and post operative) and cure.

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