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HYDATID CYST SPLEEN OUR EXPERIENCE

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ABSTRACT

Objective: To determine the management out come of hydatid cyst spleen.
Subject & Methods:
Study Design: Case series
Setting: Department of Surgery, Chandka Medical College Hospital Larkana
Study period: 15-04-2003 to 31-12-2010
Sample Size: 09 cases
Sampling technique: Nonprobability purposive.
Inclusion criteria: All patients diagnosed as case of hydatid cyst spleen and operated were included in this study.
Exclusion criteria:
- Patients diagnosed but not operated due to any reason (not willing or unfit).
- Patients not consented for study
- Patients not visited for follow up

Data Collection: All the patients who met inclusion criteria were included in this study.
After detailed history, proper clinical examination and investigations splenectomy was done in all patients. Following parameters were noted on specific designed proforma, including biodata of patient, presenting complaint, clinical findings and U/S findings. Post operatively all patients were put on medical treatment(for 3 months) and followed for a period of 1 year to observe recurrence rate.
Data Analysis: Data was entered and analyzed by SPSS version 13. Mean ± SD was calculated for age of the patient, operative time and post operative hospital stay.
Frequency and percentage was calculated for gender & clinical features.
Results: 09 patients admitted through OPD and diagnosed as case of hydatid cyst spleen were included in this study.
Age ranged from 22 to 56 years with mean and standard deviation was 41.45 years +/- 10.59. Majority of patients 4(44.4%) were in 5^{th} decade. Male to female ratio was 1:0.8 All the patients presented with mass in left side of abdomen (Splenomegally) followed by pain in 66.6%.
U/S confirmed hydatid cyst spleen in all cases, supported by positive serology. In 1 patient it was associated with hydatid cyst liver as well.
Splenectomy was done in all cases; associated liver hydatid cyst was also excised in one patient.
No major complication observed. In 1 year follow up no recurrence observed.
Conclusion: Hydatid cyst spleen is one of the presentation of hydatid disease after liver & lungs. It should be considered on detection of splenic cyst on ultrasound, in endemic areas. Splenectomy is recommended as procedure of choice, either open or laparoscopic.

Key Words: Splenic hydatid cyst, E. granulosis, splenectomy,

INTRODUCTION

Hydatid disease has been described in literature since ancient time and has global

distribution. Bertol in 1790, 1st described splenic hydatid cyst on autopsy findings.[1]

Hydatid disease is endemic in agricultural areas especially Australia, New Zealand, Middle East, India, Africa, south America and Turkey. [2]

It has world wide distribution and affects health and economics of many countries throughout world.[3] Hydatid disease has been eradicated in many countries. However it is still widespread in communities in which agriculture dominate.[4]

Hydatid disease is a common cystic disease of liver and other organs by flat worm, that is known to affect both human and animals.[4] These cestodes have a world wide distribution but prevalence is higher in developing countries. Infection is as low as 1/1000 in north America to as high as 10% in 3rd world.[5]

Echinococcous granulosus is the organism responsible for typical hydatid disease.[4] This disease is caused by larva, after ingestion of contaminated food containing the tapeworm eggs. The definitive hosts are dogs while sheep are the intermediate hosts and human is the accidental intermediate host.[5] Consumption of contaminated vegetables , meat or direct contact with dogs exposes man to larval forms of this disease.

Disease is chronic and cyst can lodge in different organs.[6] Most common sites are Liver (75%) and lungs (15%), although it can involve any organ in body. [6] Spleen is involved in about 4% of cases [6] while other sites of involvement are brain, breast, thigh, bone, intra arterial, ovaries, adrenal, heart, mesentery, retroperitoneal space, pancreas, scrotum, thyroid gland, neck, inguinal canal and soft tissues. [3,5,6]. The symptoms are usually non specific and comprise of mainly a mass in left hypochondrium and pain. The complications of untreated splenic hydatid cyst are infection and intra abdominal rupture. Severe anaphylactic reaction may occur following rupture. Hydatid cyst may be solitary or multiple involving single or multiple organs. Ultrasonography is the first line investigation for the diagnosis of abdominal hydatidosis. It is non –invasive, cheap and also valuable for follow up screening. CT scan best demonstrates the cyst wall calcification and cyst infection.

There are different serological tests for diagnosis including immunoelectrophoresis, ELISA, & Latex agglutination test.

Splenectomy is the procedure of choice for splenic hydatid cyst. Recently Laparoscopic approach has also been advocated for uncomplicated hydatid cyst of spleen.[7,8] Albendazole and or Praziquental are the drugs recommended for the treatment of disease [9], used preoperatively and postoperatively to prevent recurrences.

Hydatid cysts are common in our rural areas. Stray dogs should be eliminated from the society while there should be strict hygienic care of pet dogs. All vegetables should be washed thoroughly before eating. Public should be made aware regarding this disease and its hazards.[10]

MATERIAL & METHODS:

Study Design: Case series

Setting: Department of Surgery, Chandka Medical College Hospital Larkana

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TABLE NO: 1

AGE DISTRIBUTION

AGE GROUP	NO: OF PATIENTS	%
21 – 30	1	11.1
31 – 40	2	22.2
41 – 50	4	44.4
51 – 60	2	22.2

TABLE NO: 2

CLINICAL FEATURES

Clinical features	No of Patients	%
Abdominal mass	9	100
Abdominal Pain	6	66.6
Hepatomegally	1	11.1

Exclusion criteria:

- Patients diagnosed but not operated due to any reason (not willing or unfit).
- Patients not consented for study
- Patients not visited for follow up

DATA COLLECTION:

All the patients who met inclusion criteria were included in this study.

Purpose and procedure of the study was explained to the patient in local language and informed consent was taken from the patients or 1st degree relatives.

After detailed history, proper clinical examination and investigations (routine, serology for Echinococcous antibodies and Ultrasound abdomen), all patients were operated. Splenectomy was done in all patients. Post operatively all patients were put on medical treatment (Albendazole) for E.granulosis for 3 months.

Following parameters were noted on specific designed proforma, including biodata of patient, presenting complaint, clinical findings and U/S findings.

All patients were followed for a period of 1 year and recurrence rate was observed.

DATA ANALYSIS:

Data was entered and analyzed by SPSS version 13. Mean ± SD was calculated for age of the patient, operative time and post operative hospital stay.

Frequency and percentage was calculated for gender and clinical features.

RESULTS:

09 patients admitted through OPD and diagnosed as case of hydatid cyst spleen were included in this study.

Age ranged from 22 to 56 years with mean and standard deviation was 41.45 years +/- 10.59. Majority of patients 4(45.45%) were in 5th decade (table 1). Among these patients 5 were males and 4 were females, with male to female ratio of 1:08.

All the patients presented with mass in left side of abdomen (Splenomegally). Other features with their frequency and percent-

age are given in table 2.

U/S confirmed hydatid cyst spleen in all cases, supported by positive serology. In 1 patient it was associated with hydatid cyst liver as well.

Splenectomy was done in all cases; associated liver hydatid cyst was also excised in one patient. The operative time ranged from 50 to 90 minutes with mean and standard deviation of 60 minutes + /- 12.99.

Post operative recovery was unevent full in all cases. No major complication observed. The post operative hospital stay ranged from 5 to 7 days with mean and standard deviation of 5.56 days +/- 0.73. In 1 year follow no recurrence was observed.

DISCUSSION:

Splenic hydatid cyst is rare as compared to the rest of abdominal viscera and the incidence reported in literature is between 2 to 4%[12]. Spleen is primary involved when the parasite reaches through the arterial route bypassing the liver and lungs. Spleen can also be involved following intra peritoneal rupture of liver hydatid cyst. [13,14]

The close contact of people with sheep and dogs, unhygenic conditions and utilization of contaminated water and food in Pakistan makes this region endemic to the disease.

In our study age ranged from 22 -56 years. Majority of patients 45.45% were in their 5th decade, this is quite comparable with other studies describing majority of cases in middle age group.[8,15,16] While Husen YA[6] reported a case of primary Splenic hydatid cyst in a patient of 55 years. This is in contrast to few studies who have describe patients more in young age group i.e 8 and 21 years[17,18]

In this study majority of patients were male i.e 56%. Reported cases also favour the incidence being more common in male population. [17,18] while Vasiledeu C [16] showed female preponderance, supported by some other studies as well. [6,8,15] Splenic hydatid cyst are usually asymptomatic, about 30% cases are diagnosed incidentally while remaining may present as painful mass in left upper quadrant of abdomen. An enlarged spleen is almost always found on examination.

In this study all patients presented with mass in left hypochondrium (Splenomegally) followed by pain in 66.6% patients. Husen YA[6] reported a case of 55 years old lady with mild pain, tenderness and swelling in LHC. Rodrigeuz-Leal GA described same clinical features. [21]

Abdominal mass is a presenting feature in some other reported cases as well.[19] while in some studies pain was the only clinical feature for which patients presented to a consultant. [22,23]

Apart from mass in LHC and pain, patient may present with features of peritonitis secondary to rupture of cyst.[9] Limas C has presented a case of multiple hydatidosis in 8 years old boy that resulted from a ruptured hydatid cyst of spleen and spread into the peritoneal cavity. [17]

Diagnosis of hydatid cyst spleen should be considered in patients with cystic mass in spleen on ultrasound, who lived in geographic region, which has high risk for E.granulosis or visited an endemic area. [8]

After clinical examination diagnosis of hydatid cyst is still difficult and it has to be differentiated from other splenic lesions like non specific splenic cyst and abscess.[9] U/S and CT scan are important diagnostic tool along with serology. [1,19,21,24]

Splenectomy was performed in all the patients. One patient had hydatid cyst liver as well which was excised simultaneously. Splenectomy has been described as procedure of choice in various other studies as well. [6,15,23] Due to low co-morbidity rates, simultaneous excision of liver hydatid cyst is also recommended. [23,25] Some studies also favour the spleen preserving surgery (enucleation of cyst) where cysts are located at the margins of the spleen.[22,23]

In one year follow up period no recurrence was observed, supported by other studies as well.[15]

CONCLUSION:

Hydatid cyst spleen is one of the presentation of hydatid disease after liver & lungs. It should be considered on detection of splenic cyst on ultrasound, in endemic areas. Splenectomy is recommended as procedure of choice, either open or laparoscopic.

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