



PRESENTATION OF ABDOMINAL HYDATID DISEASE IN A KASHMIRI TERTIARY CARE HOSPITAL

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ABSTRACT

INTRODUCTION: Hydatid disease, commonly known as cystic echinococcosis (CE), is a parasitic infestation caused by the flatworm *Echinococcus granulosus*. Abdominal pain is the most common symptom in hepatic hydatidosis, followed by a palpable mass and jaundice. The aim of this study was to determine the clinical presentation of abdominal hydatidosis in adults > 18 years of age.

MATERIALS AND METHODS: This prospective study was conducted in Government Medical College Srinagar over a period of two years. This study included 30 patients after meeting inclusion and exclusion criteria.

RESULTS: In our study, the most popular age group involved in this disease was 21-30 years (50%). The mean age in our study was 31.1 ± 12.38 with range of 18-75 years. Most of our patients were women aged 18 years (60%) with a male to female ratio of 1:1.5. In our study, a correlation with dogs or cattle was observed in 6 cases (20%). In our study, the majority of patients presented with abdominal pain (80%). The majority of patients had no prodromal symptoms (53.3%). The most commonly affected organ in our study was the liver (93.3%), with the right lobe of the liver being affected in 71.4% (20) of cases. In our study, a single cyst was found in 25 cases (83.3%). All patients were treated surgically and did well with no major complications.

CONCLUSION: Hydatid disease can occur in any age group. The liver is the most commonly affected organ, with abdominal pain being the most common complaint

KEYWORDS : Hydatid disease, Abdominal pain, Jaundice, Hydatid Liver

INTRODUCTION: -

Hydatid disease, commonly known as cystic echinococcosis (CE), is a parasitic infestation caused by the flatworm *Echinococcus granulosus*. [1] Three broad morphologic forms of *Echinococcus* are recognized clinically: cystic echinococcosis, caused by *Echinococcus granulosus*, alveolar echinococcosis caused by *Echinococcus multilocularis* and polycystic echinococcosis caused by *Echinococcus vogeli* or *Echinococcus oligarthus*. As of 2005, only 4 species were recognised, but a 5th species *Echinococcus shiquicus* has now been described in small mammals from the Tibetan plateau, although its zoonotic potential is unknown.[2-7] Hydatid disease is a major endemic health problem mainly in sheep and Cattle breeding areas in Mediterranean countries, particularly Greece, the Middle East, South America and India.[8-9] Dogs, jackals are the definitive hosts for *Echinococcus granulosus*, sheep and goats are the intermediate hosts, and humans are the accidental hosts.[10]

Hydatid disease is caused by the Occurrence of cystic lesions marked in different parts of the body, most commonly liver (60-70%), lungs (10-15%). Unusual sites of involvement are muscle (3-5%), bone (2-5%), kidney (1-3%), spleen (1-2%), diaphragm (1%), ovary (0.2%). [11-14] Peritoneal cavity, thyroid, breast, gallbladder, omentum are rarely affected. [15] No site in the body is totally immune to it except hair, nails and teeth. The growth of cysts in the liver is variable, ranging from 1 mm to 5 mm in diameter/year. [16] The symptoms depend mainly on the organ involved. Abdominal pain is the most common symptom in hepatic hydatidosis, followed by a palpable mass and jaundice. [17] The aim of this study was to determine the clinical presentation of abdominal hydatidosis in adults > 18 years of age.

MATERIAL AND METHODS

Our study was a prospective observational study conducted in Postgraduate Department of General Surgery, Government Medical College, Srinagar, J&K for a period of 2 years. This study included 30 patients after fulfilment of inclusion and exclusion criteria. Ethical clearance was obtained from Institutional Ethical Committee. All diagnosed cases of abdominal hydatid disease involving adult age groups requiring surgery were included excluding All non-parasitic cysts including simple cysts, Extra abdominal hydatid disease, Malignant hydatid disease and Recurrent hydatidosis.

All patients within including age group (>18 years) were assessed by detailed history taking and thorough clinical examination.

Apart from base line investigations, patients were subjected to investigations like Ultrasound abdomen and Computerized Tomography (CT) abdomen.

Once the diagnosis was confirmed, Patients were counselled for further management. The patients were managed by surgical techniques as per recent guidelines.

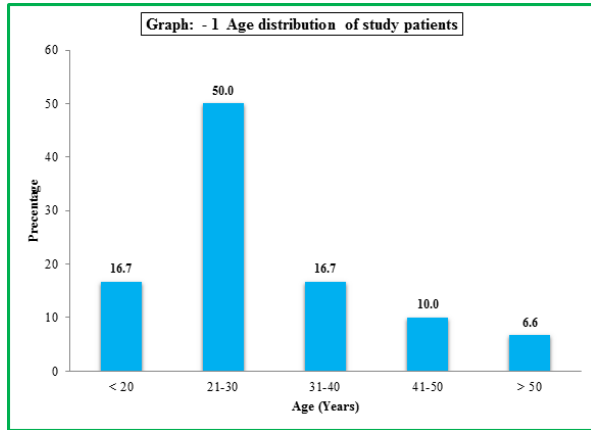
All detailed data was entered on a pre-designed proforma and was analysed using SPSS V 20.

RESULTS: -

In our study, the most common age group involved in this disease was 21-30 years (50%), followed by 21-30 years (16.7%) as shown in graph 1. The mean age in our study was 31.1 ± 12.38 with range of 18-75 years.

Table 1: Age Distribution Of Study Patients

Age (Years)	Number	Percentage
< 20	5	16.7
21-30	15	50.0
31-40	5	16.7
41-50	3	10.0
> 50	2	6.6
Total	30	100
Mean±SD (Range) =31.1±12.38 (18-75)		



Most of our patients were females 18 (60%) with Male: Female ratio of 1:1.5. In our study association with dogs or cattle was found in 6 cases (20%). In our study majority of patients presented with abdominal pain (80%) followed by vomiting (16.7%), palpable mass was found in 1 case (3.3%) and Jaundice (3.3%) as shown in table 1.

Table 1: Symptoms Of Hydatid Cyst At Presentation

Symptoms	Number	Percentage
Pain	24	80.0
Palpable mass	1	3.3
Vomiting	5	16.7
Jaundice	1	3.3

In our study majority of patients had no prodromal symptom (53.3%). Fever was present in 33.3% of cases while as malaise was seen in 3 cases (10%) as shown in Table 2.

Table 2: Prodromal Symptoms Of Hydatid Cyst

Prodromal symptoms	Number	Percentage
Fever	10	33.3
Malaise	3	10.0
Fatigue	1	3.3
No prodromal symptom	16	53.3
Total	30	100

Most common organ involved in our study was liver (93.3%) followed by spleen (3.3%) and omentum (3.3%) as shown in Table 3.

Table 3: Incidence Of Hydatid Cysts In Different Sites

Site	Number	Percentage
Liver	28	93.3
Spleen	1	3.3
Omentum	1	3.3
Total	30	100

Right lobe of liver was most commonly involved in 71.4% (20) cases followed by left lobe 21.4% (6) cases and both lobes in 7.1% (2). In our study solitary cyst was found in 25 cases (83.3%) while as multiple in 5 (16.7%) cases. All patients were managed surgically and were doing good with no major complication.

DISCUSSION

Hydatid disease has been known since ancient times and was first described by Hippocrates. [18] Hydatid disease is a

cyclozoontic disease caused by the larval stage of the cestode flatworm, which belongs to the genus *E. granulosus*. [1]

In our study, most 15 patients (50%) were in the 21-30 age group, followed by 5 patients (16.7%) who were in the 31-40 age group. The mean age of the patients in our study was 31.1±12.38, with the youngest patient being 18 years old and the oldest being 75 years old. Women outnumbered men with 18 (60%) women compared to 12 (40%) men. Our study was compared with Rb Mehta et al. (1982) [19] in which the most common age group was 21-30 years (27%), followed by 31-40 years (18.8%). Rb Mehta had a slight male dominance (56.3% males) 43.7% females. Venukumar (2017) [20] conducted a study in which the most commonly affected age group was 25-29 years (50%), followed by 35-39 years (46.7%) and then 30-34 years (3.3%). In terms of gender, males accounted for 46.7% and females for 53.3%. It is concluded that the distribution of hydatid disease can be seen across all age groups, but is less likely to be seen at younger ages due to its slow growth. There is a great deal of variation in the gender distribution due to differences in lifestyle and geographical factors. The dominance of females in our study could be explained by their involvement in agricultural and livestock activities.

In our study, contact with dogs or sheep was present in 6 cases (20%) and absent in 24 cases (80%). This is comparable to R.N. Sibal et al. (1974) [21], where a history of contact with dogs or cattle was observed in 32.6% of cases. In Sk Bhoobhate [22] et al. 49.4% of patients reported contact with dogs and cattle. This variation in the study is due to a small sample size of 30 cases. The presence of contact with domestic animals is an important risk factor that plays an important role in the etiopathogenesis of diseases. Poor personal hygiene, use of unwashed vegetables, low socioeconomic status increase the risk in people with no history of animal contact.

The most common manifestation of our study was abdominal pain (80%), followed by vomiting (16.7%), palpable mass (3.3%), Jaundice in 3.3% and incidental finding in 20% cases. Prodromal symptoms such as fever were present in 33.3% of cases, followed by malaise in 10% of cases. In 53.3% of the cases, no prodromal symptom was observed. Our study was comparable to Ahmet A [23] et al. (1999) with 74% patients with abdominal pain and 55% with lump. R.V.S Yadav et al(1989) [24] showed lump in 85.7% followed by pain in abdomen (61.4%). The variation could be because most people took prescription analgesics and never saw a doctor out of ignorance.

In our study, the most commonly affected organ was the liver (93.3%), followed by the omentum (1.1%) and spleen (1.1%). Baran et al. (1995) conducted a study in which the liver (65%) was the common organ, followed by the lung (15%) and the spleen (2%), while the omentum was rarely involved. [25] Our study showed that at 71.4% of the right lobe harbored a cyst, followed by 21.4% of cases in the left lobe and 7% of cases in both lobes. This was comparable to the study by RVS Yadav et al. (1989) [24] in which 65% of the cysts were in the right lobe and 18% in the left lobe. Ahmet A et al. (1999) [23] similarly showed that 78% in the right lobe and 13% in the left.

Therefore, our study is comparable to others and concludes that the right lobe is commonly affected. USG was performed on our study participants who showed that 83.3% of the cases had a single cyst and 16.7% had multiple cysts. Venukumar R(2017) [20] found that 93% had a single cyst and 7% had multiple cysts. All patients in our study were treated surgically. No major complications were observed.

CONCLUSION:

Hydatid disease can occur in any age group, but is most commonly observed in the middle-aged group and in women.

Association with dogs or cattle was a risk factor for the disease. The lack of past contact with pets does not exclude the possibility of illness. The liver is the most commonly affected organ. The right lobe is often affected. Abdominal pain was the most common complaint.

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