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Unusual presentations of hydatid disease in Nassiria 1996-2003

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ABSTRACT

Background:

Hydatid diseases still constitutes a serious public health problem in endemic areas in the Middle East and areas around the Mediterranean.The life cycle of this parasite exists between carnivores and herbivores, like dogs and sheep; man is an accidental intermediate host and an end-point in the parasite's life cycle.The growth of the cyst is often insidious and becomes symptomatic only late in the course of the disease.Liver and lungs are the first and second most frequently involved organs respectively, but hydatid disease can occur in all viscera and soft tissues.

Objectives:

The purpose of this paper is to describe an unusual presentation of hydatid disease in this locality.

Methodes:

During 8 years period 1996-2003 we came across 27 unusual cases of hydatid diseases which were treated in 2nd surgical unit 5th floor al Nassiria general hospital, both elective and emergency admissions.

Resultes:

A total of 27 patients were admitted [8males,19 females]: The mean age was 23 years ranging from 6 years to48 years, three quarters of patients came from rural areas and commonest presenting complaint was mass. Preoperative diagnosis were positive in 45%. Liver&/or lung involved in only one fourth of the cases ,all patients undergoing surgery and also received post op treatment medical treatment.

Discussion:

Females are more often affected than males ,patients presented mainly in 3rd decade& the disease was more prevalent in rural population.

Soft tissue hydatid is usually the only hydatid disease of the body &preoperative diagnosis were not settled in nearly 2/3rd of cases especially extra abdominal one ,majority of extra abdominal hydatid were unilocular while multilcular were common in intra abdominal one

Conclusion:

Hydatid disease should be considered in the differential diagnosis of all cystic masses in all anatomic locations of the study.

Key words: Hydetid diease.unusual presentations

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INTRODUCTION

Hydatidosis, also known as cystic Echinococcosis (CE), has been recognized as the most important and wide spread helminth zoonosis caused by tapeworm Echinococcus granulosus(1).It still constitutes a serious public health problem in endemic areas in the Middle East and areas around the Mediterranean (2, 3) as well as other parts of the world, including India, Africa, South America, New Zealand, Australia, Turkey and Southern Europe(4,5,6).The cattle and sheep rearing regions with inadequately de-wormed canine population leads to a higher prevalence of infestation (1) .The life cycle of this parasite exists between carnivores and herbivores, like dogs and sheep; man is an accidental intermediate host and an end-point in the parasite's life cycle(7).The growth of the cyst is often insidious and becomes symptomatic only late in the course of the disease(8,9).Liver and lungs are the first and second most frequently involved organs respectively, liver is involved in80% of cases(10),75% the right lobe affected while 25%in the left lobe(11), followed by the lung 18—35, synchronous pulmonary and hepatic hydatid disease may occur in 4- 25% of cases.(12,13),Hydatidosis is also the most frequent parasitic lung disease.(14),in a large study the most common pulmonary symptom was chest pain79/1% and in86% of patients the cysts were unilateral(15)but hydatid disease can occur in all viscera and soft tissues. Primary pancreatic hydatid disease is extremely rare and it accounts for 0.19-2%of all hydatid cases. The breast is another rare location for the disease; it accounts only for 0.27% of all occurrences (16,17,1).The CE can present with complications such as compression effects, rupture into adjacent structures and secondary infections ,in addition to the presentation as un complicated cysts. Surgery of hydatid disease remains the best treatment which aims to remove the cyst or its remnants and obliterate the residual cavity[19] .Benzimidazole carbamates are effective against CE, albendazole a more recently developed benzimidazole is more effective than mebendazole.[20,21],administration of albendazole for 4 to 8 weeks may decrease the incidence of recurrence.[22]

PURPOSE

The purpose of this paper is to describe the unusual presentation of hydatid disease in this locality and emphasize the fact that this disease is justified in any cystic neoplasm of any organ in the body, especially in endemic areas [our society].

PATIENT AND METHODS

During 8 years period 1996-2003 we came across 27 unusual cases of hydatid diseases which were treated in 2nd surgical unit 5th floor al Nassiria general hospital ,all cases were reviewed according to age ,sex ,clinical presentation ,preoperative diagnosis ,site, multiloclar or unilocular and wether or not liver &lung involvement, The cases comprise both elective and emergency admissions.

RESULT

A total of 27 patients were admitted [8males,19 females] giving a male to female ratio of 1:2.7,[Table 1].The mean age was 23 years ranging from 6 years to48 years,[Table 3] .about 74.1% of patients came from rural areas [Table2]. Their commonest presenting complaint was mass(63%),painless mass in 37%

and 26% were painfull,22% abdominal & 41% were extra abdominal[Table4,5], 48% unilocular& 52% were multilocular cyst[Table 7].The second most common presentation was jaundice.Preoperative diagnosis were positive in 45%&negative in55%[Table6]Liver&/or lung involved in only one fourth of the cases[Table8].

All patients undergoing surgery& also received post op treatment medical treatment, the most frequently used drug was ,albandazole at a dose of 10-20 mg/kg in two divided doses. All patients were followed by abdominal ultra sonography and chest-x-Ray.

DISCUSSION

Patients with hydatid disease usually remained symptomless for long time &discovered accidentally during the course of investigation of other disease or mild hypocondrial pain &/or palpable mass &some time presented with one of complications.In attempt to identify the unusual pattern of hydatid disease in this area we did this study. Despite equal distribution of the disease in both sexes in adult population[23,24], in this study females are more often affected than males(Table1) most propably females in these age group have contact more with dogs especially in rural areas.,Growth rate of the cyst depends on the host tissues, the compact structure of the tissues and the patient's immune response influence the size of the cyst andresulting symptoms ,this leads to a relatively slow course and delayed presentation making it a disease of middle aged people[25],our patients presented mainly in 3rd decade(Table 3) because growth rate of the cyst in the soft tissues[which are less dense than compact structure as liver& lung] is more rapid so the patients presented earlier.In our study the disease was more prevalent in rural population (75 rural vs. 25%urban) in other study the disease was more prevalent in urban population[26]Intra abdominal masses were 14 cases[51.9%] with only 5cases has or previous had liver hydatid i.e. nearly 1/3rd of cases, soft tissue masses [including abdominal wall] were occurred in 13 cases with only 2 cases [15.3%] had previous liver &/or lung hydatid ,so soft tissue hydatid is usually the only hydatid disease of the body(Table8,9,10).Preoperative diagnosis were not settled in 55.5% of cases especially extra abdominal one[nearly 2/3rd of cases](Table 6).For unknown reasons majority of extra abdominal hydatid were unilocular while multilcular were common in intra abdominal one(Table7).2cases of leaking hydatid were treated in pediatric hospital as drug allergy &henoch scholein purpura for 2 daysbefore they shifted for surgical treatment .4 cases had previous drainage as abscess.Ultra sound performed in 17 cases with improper diagnosis in 5 cases [29.4%]i.e. mesenteric cyst, ovarian cyst, retro peritoneal tumor ,pseudo pancreatic cysts(2cases)Our preferred surgical approach was endocystectomy for the hydatid cyst. This is a safe, simple, effective procedure and completely removes the active disease while saving the healthy tissue, this approach was supported by other study abroad (27).

CONCLUSION

Hydatid disease should be considered in the differential diagnosis of all cystic masses inall anatomic locations, especially in regions where the disease is endemic. The idealtreatment is the complete excision of the cyst without any spillage. Moreover, medical treatment should precede and follow the surgical intervention. Recurrent abscess may be due to hydatid disease as endocysts were not removed in 1st surgery.

TABLE 1 : Sex distribution

males	8	29.5%
Females	19	70.5%

TABLE 2: Residency

Rural	20	74.1%
Urban	7	25.9%

TABLE 3: Age distribution

<10	2	7.4%
10-14	5	18.5%
20-29	11	40.7%
30-39	6	22.2%
40+	3	11.1%

TABLE 4: Clinical presentation

Mass	17	63%
Jaundice	3	11 %
Acute abd.	2	7.4%
Non specific	5	18.5%

TABLE 5:Characteristic of Mass

	NO.	%
Paine:		
Painless	10	37%
Painful	7	25.9%
Site:		
Abdominal	6	22.2%
Extra Abdominal	11	40.0%
Total	17	100%

TABLE 6: Preoperative diagnosis

Site	Positive	Negative
Abdominal	9[33.3%]	7[25.9%]
Extra abd.	3[11.1%]	8[29.6%]

TABLE 7 :operative finding

Hydatid cyst	Extra-abd.	Intra-abd.
Unilocular	8[29.6%]	5[18.5%]
Multilocular	3[11.1%]	11[40.7%]

TABLE 8: liver and lung involvement

Liver &/or lung	Extra abd.	Intra abd.
Involved	2[7.4%]	5[18.5%]
No involvement	9[33.3%]	11[40.7%]

TABLE 9: LOCATIONS

Site	No	%
Abdomen	16	59.2%
Neck	3	11.1%
Gluteal region	2	7.4%
Chest wall	2	7.4%
Axilla	1	3.7%
Scapula	1	3.7%
Breast	1	3.7%
Thigh	1	3.7%

TABLE 10: Abdominal distribution of case

Site	No	%
Intra peritoneal Leak 2 Lesser sac 2 Mesenteric 1 Greater omentum 1	6	22.2%
Intra biliary	3	11.1%
Kidney	2	7.4%
Abd. wall	2	7.4%
Retroperitoneal	2	7.4%
Ovary	1	3,7%

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