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AMOEBIC LIVER ABSCESS: A REPORT OF 100 CASES

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ABSTRACT:

100 cases of Amoebic Liver Abscess with age ranging from 20 years to 70 years have been treated over a period of 5 years. Amoebic Liver abscess was found in 8% cases of amoebic colitis.

Interesting clinical observations were, afebrile presentation in 14% and jaundice in only 9% cases. In most cases liver function tests were of no significance. Hepatic scan was useful diagnostic aid. Peritoneal rupture occurred in only five cases. Open Drainage was indicated if response to anti-amoebic therapy and aspiration failed or if secondary infection SUPERVENED. As such surgical open Drainage was our main approach in these cases.

INTRODUCTION:

Amoebiasis is an endemic disease in tropical and sub-tropical countries, although less common in the West. Wilmot Homen in this series has reported liver involvement in 10% cases of amoebiasis.

This serious complication if not diagnosed early and treated adequately may end fatally. When its symptoms are typical, it's recognition is easy. The problems arise in a typical case when diagnosis is often missed or delayed resulting in rupture of abscess in contiguous viscera or area with serious complications.

Delayed or in-adequate treatment, malnutrition and low host resistance are mainly responsible for the poor prognosis. Early operative procedure by preoperative resuscitation can improve the survival considerably.

One hundred cases of Amoebic Liver Abscess arc presented. Their clinical features, laboratory tests and scans arc critically analysed. The relative merits of various criteria of diagnosis in their therapeutic protocol involved as a result of experience arc discussed in detail.

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MATERIALS AND METHODS:

One hundred cases with proved Amoebic Liver Abscess admitted and treated at Ayub Teaching Hospital during a period of live years have been studied. The Syndrome of persistent high fever with occasional rigors, tender hepatomegaly, pain in right lower intercostal spaces, leukocytosis and past history of intestinal amoebiasis was considered highly suspicious.

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The diagnosis however, was established on the basis of presence of one or more of the following criteria: -

1. Tender hepatomegaly with a palpable abscess, which responded to specific anti- amoebic treatment.
2. Filling defect on hepatic scan which reverted to normal after specific antiamoebic treatment.
3. Aspiration of anchovy sauce pus which was sterile on culture.
4. Elevated immobile right done of diaphragm with or without pleural involvement.

The following laboratory investigations were carried out: -

1. Blood examination (Hb gm%, TLC, DEC, ESR).
2. Stool examination for Entamoeba histolytica, (trophozoites/cysts).
3. Urine examination for bile pigments.
4. Liver function tests (Scrum Bilirubin, Alkaline Phosphatase, differential proteins, SGOT, SGPT).

3. Hepatic Scan.

Logistics did not allow us to perform two very important serological tests i.e., indirect haemagglutination test and Gel diffusion precipitative test which have been proven to be very informative in some of the Indian centers.

RESULTS:

Age and Sex Incidence:

Out of 100 cases 88 were male and 12 were females. Maximum incidence in males was in 2and and 3rd decades and in females 4th decade.

Table – 1:

Age in years	No. of Patients	Male	Females
20-30	35	33	2
31-40	27	24	3
41-50	21	15	6
51-60	15	14	1
61-70	2	2	—
Above 71	—	—	—
	100	88	12

Clinical Features:

Clinical features are tabulated in table -2:

Table – 2:

Clinical Features	**No. (%) of Cases**
1. Modes of Onset	
i. Sudden onset of symptoms	33
ii. Gradual onset of symptoms	67
2. History of Dysentery	33
3. Nutritional Status	
i. Good	74
ii. Poor	26
4. Pain	
i. Upper abdomen (diffuse)	28
ii. Lower abdomen (localized)	72
5. Fever	
i. Mild to moderate	70
ii. High grade	16
iii. No Fever	14
6. Jaundice	

Clinical Features	No. (%) of Cases
7. Hepatomegaly	
i. Right lobe	63
ii. Left lobe	11
iii. Diffuse	26
8. Intercostal tenderness	80

The onset was acute in 33% patients with high fever and pain in right hypochondrium 72% with jaundice 9% and with moderate fever and vague upper abdominal pain 28%. In remaining 67% onset was gradual with a vague dull pain in right hypochondrium and occasional mild fever The average duration of illness before reporting to hospital was 18 days. The liver was enlarged in all cases. The bulge over liver w-as invariably accompanied by intercostal tenderness. In cases with upward enlargement of the liver, the liver was just palpable below the costal margin.

Investigations:

Blood, stools urine test was performed. Total leucocyte count was raised above 10,000/cmm in 90 cases with poly morphonuclear leukocytosis present in 70%. Hb was below 10 gm%> in 55 cases, and above 10 gm in 45% of cases. ESR was raised in 75% cases. Stools examination revealed entamoeba histolytica in 8 cases only. Urine showed bile pigments in 4 cases.

Results of Liver function tests are shown in Table-3.

Table-3:

S. No	Results of Liver Function Tests	N.V. Range	% of Patients	
			Normal	Abnormal
1.	Scrum Bilirubin	0.25-1.5mg/dl	91	9
2	Total proteins	6.5-8.5mg/dl	54	46
3.	Serum Albumin	3.8-4.8mg/dl	95	5
4.	Scrum Globulin	3.0-3.7mg/dl	59	41
5.	Alkaline Phosphatase	45-125 IU/L	31	69
6.	SCOT	5-40 IU/L	100	0
7.	SGPT	5-35 IU/L	98	2

Serum Bilirubin was above 2mg/dl in (09) cases. Alkaline Phosphatase was raised in 69 cases. Serum globin was raised in 41 cases.

The result of Liver Scans is shown in Table – 4.

TABLE – 4: RESULTS OF LIVER SCANS

S. No	Cold Areas	No. of Cases
1.	In Right Lobe Above	25
2.	In Left. Lobe Above	11
3.	In both Right and Left Lobes	23
4.	Multiple Cold Areas	23
5.	Normal Scan	-

The result of X-rays is shown in table -5.

Table -5

S. No.	X-Ray Findings	No. of Cases
1.	Elevation of Rt. Diaphragm	94
2.	Pleural Effusion (Right)	4
3.	Pleural Effusion (Left)	2

TREATMENT:

Although management of Amoebic Liver abscess continues to generate considerable controversy like; Antiamoebic drugs, needle aspiration surgery, ultrasound guided needle aspiration; we advocate open drainage.

All the patients were put on Metronidazole 400-800mg TDS twenty-six patients were aspirated but due to poor progress these were then surgically treated; drainage was done with peritoneal toilet and a tube drain was put in. They were continued on Flagyl infusion for 3 days with broad spectrum antibiotics for 10 days.

COMPLICATIONS:

Amoebic Liver abscess ruptured into peritoneal cavity in 5 cases ruptured into the liver in 2 cases, ruptured into the lungs in 2 cases, pleural reaction occurred in 15%, pneumonia in 3% of cases and Empyema in 4%. Three of the patients died.

DISCUSSION:

Although Amoebic infection occurs in both males and females equally, for unknown reasons

both the intestinal and extra intestinal manifestations arc seen much more often in males, the male to female ratio in our series was 7:3. There was a past history of dysentery in 33%.

The clinical manifestations arc extremely valuable. The symptoms may occur suddenly or develop insidiously. The one was sudden with pain in right hypochondrium and fever in 33% and gradual in 67%. 14% remained a febrile during the course of the disease.

There is an erroneous impression that diarrhea is a common accompanying manifestation of Amoebic Hepatitis. In our study none of the patients suffered from diarrhea.

Hepatomegaly was found in all the cases. Palpation of Liver edge may be difficult due to tenderness and rigidity of Abdominal muscles. Percussion for hi upper border of the liver invariably revealed enlargement and was found to be a valuable clinical signs. The cases of muscles guarding should be closely watched for any perforations. If perforation is suspected, immediate laparotomy should be performed.

When abscess is in the left lobe of the liver physical findings should be there of tenderness in epigastric region or left hypochondrium. If diagnosis is delayed, rupture into peritoneal or pericardial spaces is more likely to occur.

The interesting feature in the present series was the presence of clinical jaundice in 0% of cases with scrum bilirubin above 2mg/dl and raised alkaline phosphatase but a normal scrum bilirubin.

The mechanism of jaundice in Amoebic Liver abscess is not clear. It is considered to be due to pressure on bile ducts or it may be due to a defect in the transport mechanism of bilirubin in the liver.

Most liver functions tests arc of no value in the diagnosis except significantly raised alkaline phosphatase and globulin fraction with normal SCOT and SGPT. In cases of Hepatomegaly with jaundice; raised alkaline phosphatase and globulin fraction with normal SCOT and SGPT is highly suspicious of amoebic disease of liver.

Jaundice and low serum albumin arc bad prognostic signs. All the three patients who died were clinically jaundice, were above the age of 60 years and had a low serum albumin, low albumin and jaundice when both combined seem to increase the risk of mortality.

Scanning was done in more than 80% of cases and was diagnostic in all of them. It is a very useful procedure in the diagnosis and follow up of amoebic liver abscess.

Needless aspiration was performed in 26 cases. If the abscess fills up again rapidly it is better to apply open drainage and consider the possibility of secondary infection of the liver abscess. These patients were not responding to antiamoebic and culture and sensitivity revealed a mixed aerobic secondary infection laparotomy and open drainage were employed subsequently.

Rupture of abscess into the surrounding structure is a serious complication. Intraperitoneal

rupture occurred in 5 cases, rupture into lungs in 2 cases. Pleural reaction was observed in 5.1%. Three patients died inspite of treatment (mortality 3%). They were debilitated, aged and had a poor nutritional status. The mortality depends upon the resistance of host stage of infection, secondary infection and type of therapy administered.

Once diagnosis of amoebic liver abscess has been established, then some of these cases were started on intramuscular dihydroemitene 60 mg with metronidazole 400 mg three times a day and continued for 10 days.

although Chloroquine 300 mg and Tetracycline 500mg three times a day has been used in some parts of India but we did not use these drugs.

Needle aspiration was done in these cases for diagnostic purposes; but our main treatment was operative drainage through a subcostal incision after traversing the peritoneal cairty. In this procedure one can remove all the pus and necrotic material. Post operatively these cases were continued on metronidazole infusion for 3 days.

CONCLUSION:

Successful management of amoebic liver abscess required early operative intervention preceded by antibiotic therapy.

Open drainage is mandatory cases that present with complications such as perforation and secondary infection. Left lobe abscesses arc best treated by open drainage. Open drainage is recommended as a safer and worthwhile procedure for big abscess.

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