



A STUDY OF CHARACTERISTICS AND MANAGEMENT OF PYOGENIC LIVER ABSCESS

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ABSTRACT Pyogenic liver abscess (PLA) are space-occupying lesions in the liver associated with high morbidity and mortality. The majority of cases are polymicrobial and are most commonly caused by seeding of infection from biliary system. PLA is mostly associated with diabetes, underlying hepatobiliary and pancreatic diseases. PLA is a diagnostically challenging problem due to nonspecific presenting characteristics. Around 50 patients were identified. The majority of patients presented with fever (80%); right upper abdominal pain in 70%, vomiting and nausea in 30%. The diagnosis, treatment and prognosis, of liver abscess have evolved remarkably over past few years. The study aims at early clinical and diagnosis on imaging of liver abscess, to set up some guide lines in view of conservative or either intervention.

KEYWORDS : Liver Abscess, Pain Abdomen, Polymicrobial And Fever.

INTRODUCTION

Liver abscess, has a very long historic and Medical background mentioned in very old literature (3000 BC). In world literature mainly two major descriptions for aetiology is known, amoebic and pyogenic, Western Literature for liver abscess suggest Pyogenic liver abscess constitutes major chunk of hepatic abscess. Pyogenic liver abscess (PLA), a suppurating infection of the hepatic parenchyma, remains a mortality associated condition and nowadays develops as a complication of biliary tract diseases for about 40% of cases. Recently, the aetiologies of PLA have shifted from intra-abdominal infections such as acute appendicitis

and trauma to pathologic conditions of the biliary tract; however, up to 55% of patients with PLA have no clear risk factors and these cases are called cryptogenic. Early diagnosis and treatment is a crucial step in the management of these patients, since the presentation may be subtle and not specific (abdominal pain, fever, nausea, and vomiting),

so currently constitutes a challenge for physicians: a high index of suspicion is the cornerstone of prevention for misdiagnosis and improvement of prognosis. In recent decades, combined antibiotic therapy and percutaneous drainage have become the first-line treatment in most cases and has greatly improved patients' prognosis: the mortality rate has dropped from 70% to 6.31%.

AIMS & OBJECTIVES:

1. To study the Demographic profile
2. To study the risk factors associated with liver abscess.
3. To study the microbiological diversity in liver abscess.
4. To study the spectrum of clinical presentation
5. To evaluate efficacy of Ultrasonographic studies in determining the aetiology which may change the treatment outcome
6. To study the effectiveness of different modes of management.

METHODS:

This is a prospective study of fifty treated patients at our institution conducted from June 2018 to March 2020.

Inclusion Criteria

Patients suspected of having liver abscess on the basis of history and clinical assessment which were then Confirmed by USG and laboratory work up.

Patients more than 18 years

Exclusion Criteria

Patients aging less than 18 years.

Abscess associated with malignancy.

Immunocompromised patients.

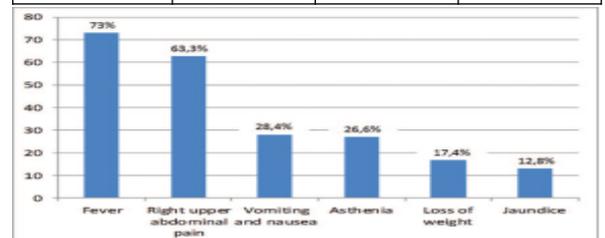
Ascites.

Liver abscess which ruptured in peritoneal, pericardial, pleural cavity.

Amoebic liver abscess, hydatid liver abscess, previous episode of PLA, and previous liver transplantation.

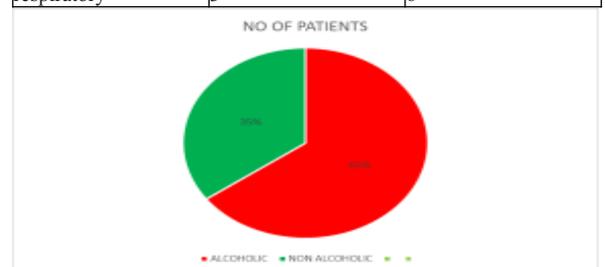
RESULTS

Age	Male		Female		Total	
	No	%	No	%	No	%
0 – 30yrs	9	18	1	2	10	20
31-40yrs	10	20	0	0	10	20
41-50yrs	15	30	6	12	21	42
51-60yrs	4	8	3	6	7	14
>61yrs	2	4	0	0	2	4
Total	40	80	10	20	50	100



SIGNS

Signs	No. of pts	%
Fever	34	73
Icterus	15	30
Pallor	10	20
Abd.Tenderness	18	36
respiratory	3	6

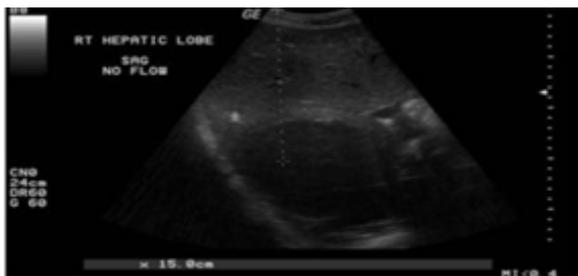
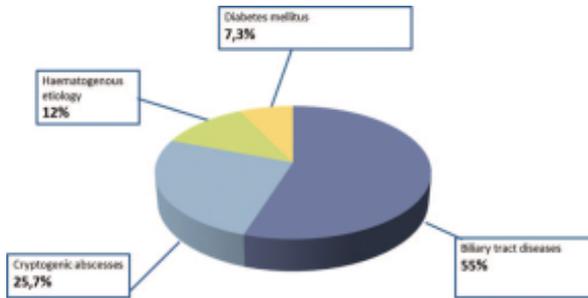
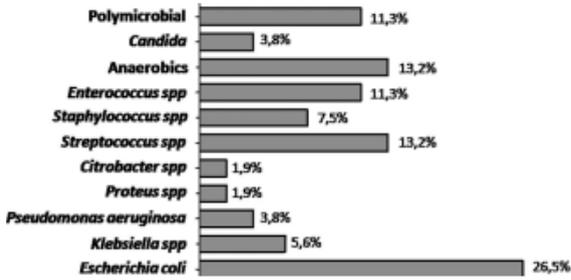


LAB PARAMETERS

Investigation	No.of PTS	%
Anemia	10	20
Leukocytosis	25	50
Diabetic	12	24
Raised urea	15	30

ABNORMAL LFT

	No.of PTS	%
Hypoalbuminemia	5	10
Hyperbilirubinemia	25	50
Raised ALP	12	24
Abnormal PT	10	20



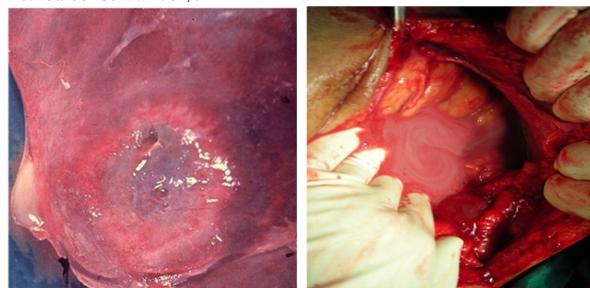
USG showing abscess in right lobe of liver.

Number	No. of PTS	%
solitary	40	80
Multiple	10	20
total	50	100

Treatment Analysis

Treatment	No. of pts	%
Conservative	10	20
Aspiration	17	34
Laparotomy	10	20
Laparoscopic	13	26
Total	50	100

Of 50 cases abscess volume less than 50cc are 10 members and treated conservatively.



COMPLICATIONS

Complications	No. of PTS	%
Ruptured into peritoneal cavity	5	10
Pleural effusion	5	10
septicemia	1	2

DISCUSSION

In this study, the clinical characteristics, aetiology, microbiology, treatment, and mortality of 50 patients with PLA are reviewed and reported.

The age of the patients varied from 21 – 66 years. The mean age was 45.34 yrs. which is in accordance to studies like by Sharma et al and Mukhopadhyay et al who reported it to be 40.5 and 43.64 years, respectively.

Presenting symptoms of PLA were multiple and low specific, including fever, right upper abdominal pain, vomiting, nausea and asthenia, while on physical examination jaundice was recognized in 30%cases.

Perhaps the low index of suspicion of PLA due to the nonspecific presentation characteristics, the diagnosis could be suggested by the underlying predisposing disease processes. We identified predisposing diseases associated with the abscess formation, hepatic–pancreatic–biliary system problems were present in the majority of cases.

There are little formal data regarding the optimum duration of antibiotic therapy, but most units use a regimen of 2 weeks' parenteral treatment, followed by a more prolonged course (4–6 weeks) of therapy, switching to oral antibiotics when clinical and inflammatory responses allow. In our study, the range of antibiotic treatment duration was 29.7±19.8 days, we also considered long oral antibiotic courses lasted after discharge.

Percutaneous needle aspiration and catheter drainage has been shown to be beneficial in the treatment of PLA in association with antibiotics: this association is the present standard practice. Of our cohort, all patients received antibiotic treatment.

Belonging to a meta-analysis, there is a favored opinion for use of percutaneous catheter drainage over percutaneous needle aspiration & facilitates a higher success rate, reduces the time required to achieve clinical relief and supports a 50% reduction in abscess cavity size.

CONCLUSION

The study attempts to show our first-hand real, original experiences in this field and to provide useful information. In practice, clinicians should maintain a high index of suspicion for PLA in patients who present with the risk factors; in particular, hepatic-pancreatic-biliary system pathologies, and clinical scenarios of fever, right abdominal pain, increased levels of C-reactive protein and white blood cell count.

Abscess cavity resolves better in case of catheter drainage than needle aspiration.

Prompt diagnosis of liver lesion and administration of antibiotics and percutaneous drainage can conduce to successful treatment.

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