

Factors Deciding Surgical Intervention in Liver Abscess

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Abstract: Liver abscess is a common condition in India. India has 2nd highest incidence of liver abscess in the world. Pyogenic abscess accounts for three quarters of hepatic abscess in developed countries. While amoebic liver abscess cause two third liver abscess in developing countries. Amoebiasis is presently the third most common cause of death from parasitic disease. The world health organisation reported that *Entamoeba Histolytica* causes approximately 50 million cases and 100000 deaths annually liver abscess continues to be disease with considerable mortality in India. Liver abscess has an increasing incidence rate in United States and Europe Modern treatment has shifted towards IV broad spectrum antibiotics and image guided percutaneous needle aspiration or percutaneous catheter drainage and surgical drainage. Treatment of liver abscess were improved significantly with the introduction of ultrasound and computed tomography

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I. Introduction

Liver abscess has multimodal aetiological and risk factors, varied presentation, management approaches and high recurrence or residual disease.

Though it is common and elaborately studied, it is least understood and has pitfalls. Hence planned to study the varying clinical and biochemical presentations of liver abscess, risk factors, management modalities, factors deciding necessity for surgical intervention and outcome.

Liver abscess is a significant problem of tropical countries and remains a great diagnostic and therapeutic problem. If left untreated, the disease invariably runs a lethal course. The management of this disease varies considerably from surgeon to surgeon. Liver abscess is a condition with significant mortality. Early studies by Oschner et al. recommended open surgical drainage as the treatment of choice. For the past two decades, advances in the imaging field coupled with ultrasound-guided percutaneous needle aspiration and drainage brought dramatic changes in the pattern of treatment for pyogenic liver abscess.

II. Aim

The aim of our study was to determine the factors deciding necessity for surgical intervention and outcome. As India is a one of the tropical country and home to 400 million people harbouring ,the causative organism of amoebic liver abscess ,it is important to thoroughly understanding of liver abscess All these factor influenced me to select this topic which assumes more important in rural population . Am here discussing the various factors deciding necessity of surgical intervention in liver abscess

III. Materials and methods

Study design:

Prospective cohort study

Methodology :

Patients presenting with features of liver abscess and diagnosed radiologically or yet to be diagnosed are included in the study and detailed clinical and laboratory history, treatment as per standard guidelines, factors leading for surgical intervention and subsequent follow-up are carried out and the data will be analysed. The common factors associated with surgical intervention in cases of liver abscess include,

S.NO	FACTORS
1.	Residual / Recurrent abscess
2.	Thick pus
3.	Multi-loculated abscess
4.	Left lobe abscess
5.	Ruptured abscess
6.	Caudate lobe abscess
7.	Multiple abscess
8.	Abscess>5cm

Sample size:144

Patients admitted with liver abscess at CMCH from January 2017 – december 2017

Inclusion criteria :

1. Radiologically diagnosed liver abscess
2. All cases of bacterial and parasitic liver abscess
3. All cases of evolving ,liquefied and ruptured liver abscess with or without peritonitis
4. Past history of liver abscess
5. All the cases of diagnosed liver abscess referred to CMCH

Exclusion criteria :

1. Liver abscess associated with malignancy
2. Immunocompromised state

IV. Discussions

Liver abscess has multimodal aetiological and risk factors ,varied presentation ,management approaches and high recurrence or residual disease Hence planned to study the various clinical presentation ,management modalities and factors deciding necessity for surgical intervention in liver abscess and outcome Hence we studied various factor deciding necessity for sutgical intervention in liver abscess. Chi –square test was applied on obtained parameters to arrive for statistical significance

V. Results

The results showed

1. Among left lobe liver abscess vs right lobe liver abscess treated ,the p value <0.01 shows statistical significance
 2. Among thick pus vs thin pus treated ,the p value is <0.05 shows statistical significance
 3. Among multilocated abscess vs uniloculated abscess treated ,the p value is <0.001 which shows high statistical significance
 4. Among multiple abscess vs single abscess treated ,p value is <0.001 which shows statistical significance.
 5. Among recurrent abscess vs primary abscess treated ,p value is <0.01 which shows statistical significanc
- So these following parameters shows necessity for surgical intervention

1. Recurrent abscess
2. Thick pus
3. Multiloculated abscess
4. Left lobe abscess
5. Caudate lobe abscess
6. Multiple abscess

The calculated value for outcome between operated and conservative management ,here the p value is<0.05 hence there no significance ,the null hypothesis is accepted

VI. Conclusion

The different factors deciding the necessity for surgical intervention in liver abscess were studied. The following parameters shows the necessity for surgical intervention in liver abscess

1. Recurrent abscess
2. Multiloculated abscess
3. Thick pus
4. Multiple abscess
5. Caudate lobe abscess
6. Left lobe abscess

The calculated value for outcome between operative and conservative management showed no significance were null hypothesis accepted.

This indicates necessity for study in large sample size and multicentric studies to arrive for a conclusion to prove significant outcome

Summary

Liver abscess has multimodal aetiological and risk factors, varied presentation ,management approaches and high recurrence or residual diseaseHence planned to study the varying clinical and biochemical presentations of liver abscess, risk factors, management modalities, factors deciding necessity for surgical intervention and outcome. The prospective study was conducted at Coimbatore medical college for one year duration after obtaining local ethical committee permission

Based on the incidence at this college the sample size calculated as 144 patients. The various factors deciding the necessity of surgical intervention were studied, the following parameters shows the necessity for surgical intervention.

1. Recurrent abscess
2. Thick abscess
3. Multiple abscess
4. Multiloculated abscess
5. Caudate lobe abscess
6. Left lobe abscess

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