



ETIOLOGY AND MANAGEMENT OF LIVER ABSCESS- A COMPARATIVE STUDY BETWEEN PERCUTANEOUS DRAINAGE AND SURGICAL DRAINAGE

General Surgery

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KEYWORDS

INTRODUCTION

Liver abscess is a common clinical pathology in tropical countries and is most commonly caused by pyogenic, amoebic or mixed infection. less commonly may be fungal. hepatic abscess can be defined as a suppurated cavity caused by the invasion and multiplication of microorganisms within healthy or diseased liver parenchyma. hepatic abscess seems to increase with age, comorbidities (diabetes, malnutrition, immunosuppression). clinical signs of liver abscess may be abdominal pain, fever. liver function test may be more or less abnormal depending on the extent of the abscess. ultrasonography and CT scan can lead to diagnosis in more than 90% of cases. management of nonparasitic hepatic abscess consists of antibiotics, percutaneous drainage and surgical drainage and treatment of the underlying disease or cause. Early criteria for effective treatment are afebrile, disappearance of pain and normalization of leucocytosis. reversal of imaging findings usually occurs somewhat later. antibiotics should be started promptly as soon as blood cultures have been drawn and before drainage procedure to limit systemic effects of septicemia. empirical antibiotic choice should be directed to treat abscess caused by aerobic gram negative bacilli and gram positive cocci such as piperacillin-tazobactam, amoxicillin-clavulanic acid, cefotaxime, ceftriaxone in combination with gentamicin. metronidazole can be used in combination if amoebic abscess is suspected. Duration of therapy is generally between 2 to 6 weeks. percutaneous drainage of hepatic abscess was initially described in Hong Kong in 1953 by McFadzean et al. however for some authors there is a role for surgical drainage if percutaneous treatment for hepatic abscess is not successful, for large abscesses > 5 cms and/or multilocular hepatic abscess or when surgical treatment of underlying cause of hepatic abscess is necessary.

MATERIALS AND METHODS

Study was done in 310 patients diagnosed with liver abscess with the use of ultrasonography and CT findings during a period from December 2021 to October 2023 in patients coming to surgical emergency, PMCH, Patna. Initially percutaneous needle aspiration was done, if not successful percutaneous catheter drainage was done, if not successful, then surgical drainage was done.

RESULTS

Success rate in the percutaneous needle aspiration group was 68% and percutaneous catheter drainage was 72%. however this difference was statistically not significant suggesting that both are equally efficacious. total duration of hospital stay after intervention mean 7.1 days (percutaneous needle aspiration) vs 10.8 days (percutaneous catheter drainage), were significantly less in percutaneous needle aspiration group. In those patients in which these management were unsuccessful, surgical drainage was done. These patients had either multiloculated abscess cavities or size of hepatic abscess > 5 cms. Surgical drainage had the highest success rate, but had the highest morbidity.

CONCLUSION

Hepatic abscess is a severe condition. diagnosis relies mainly on imaging (ultrasonography, CT scan). For bacterial hepatic abscess less than 3-5 cms in diameter, antibiotics alone may be adequate but needle aspiration helps to identify the microbes and evacuate the content. For larger bacterial hepatic abscess, antibiotics should be combined with radiological intervention such as percutaneous drainage or surgical drainage (laparotomy). Irrespective of size, it is important to determine the etiological mechanism. Amoebic abscess should be considered in all patients who have spent time in endemic areas, even many years

before. Hepatic abscess less than 3 to 5 cms. In diameter can be treated with antibiotics alone. Needle aspiration is more effective than one or several evacuations for certain hepatic abscess.

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