

ABSTRACT FORM

9th Annual Hospital Research Celebration

**SURGICAL INTERVENTION
IS THE OPTIMAL TREATMENT
FOR MULTILOCULAR AND MULTIPLE
LIVER ABSCESES**

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Purpose: The purpose of this study is to prove that surgical intervention is the optimal treatment for multiloculated or multiple liver abscesses, that otherwise would require numerous percutaneous drainages and long term antibiotics for an inferior therapeutic result.

Patients: This retrospective study includes 40 patients that were treated for liver abscesses the last 5 years at Rhode Island Hospital. 58% of the patients were females. 52% of the patients were less than 60 years old. All of them had signs or symptoms associated with their liver abscess(es). Only 15% of the patients were immunocompromised (i.e. radiation, hematologic diseases). 30% of the patients had WBC > 20000/ul. 63% of the patients had elevated Alkaline Phosphatase. 25% of the patients had positive blood cultures. Most of the abscesses were pyogenic (only 2 were amebic). The organism most commonly isolated from the abscesses was E.Coli (30%). Mean follow up time was 2 years.

Methods: Treatment was successful if the patient was free of symptoms, laboratory data were normalized and (whenever applicable) there was imaging evidence that the abscess was getting smaller / gone. Recurrence was considered any liver abscess diagnosed after successful treatment of an older one/older ones. ANOVA (with Fischer's post-hoc) and t-student statistical analysis tests were used for evaluation of the results.

Results: 53% of the abscesses were solitary, whereas 47% were multiloculated or multiple. 63% of those were located at the R lobe, 23% at the L lobe and 14% were bilateral. 23% of the abscesses were smaller than 3 cm, whereas 67% were larger. 8% of the abscesses were treated with antibiotics alone, 70% of the abscesses were treated with guided drainage (US or CT) and 22% of the abscesses were treated with either surgical drainage or hepatic resection. Antibiotics were used only for smaller than 3 cm abscesses. Surgical drainage or hepatic resection were mainly used for treatment of multilocular/multiple abscesses. Guided drainage was successful by only 62% in the treatment of multilocular/multiple liver abscesses, whereas surgical drainage or hepatic resection were successful by 100%.

Conclusions: Solitary liver abscesses < 3 cm may be treated effectively by antibiotic therapy alone. However, multilocular or multiple liver abscesses with a size > 3 cm should be treated surgically, either with surgical drainage or with hepatic resection, as long as the patient is able to tolerate the operation.

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