

Air cavitogram as investigative modality for Amoebic Liver Abscess

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Abstract

Amoebic liver abscess is a condition of high socioeconomic and medical importance in developing countries of south-east Asia and Latin America. Surgical treatment centres mainly on percutaneous transhepatic catheter drainage or needle aspiration. Air cavitogram done by injecting air into the abscess cavity has been a rarely used investigation for assessment of residual collection and decrease in size of liver abscess. We report the results of air cavitogram performed after needle aspiration and percutaneous transhepatic catheter drainage and strongly advocate its routine use.

Sir,

Intestinal amoebiasis is an endemic problem in the lower socioeconomic strata of developing countries of the south-east Asia and Latin America affecting nearly 10 % of the world population.[1] Amoebic liver abscess is an infrequent complication of intestinal amoebiasis seen in 3-9% of cases of intestinal amoebiasis.[1] Amoebic liver abscess can be managed medically or surgically. Surgical management of liver abscess includes open drainage, single or multiple needle aspirations or percutaneous transhepatic catheter drainage, the latter being a recent treatment modality. [2, 3] The adequacy of drainage and resolution of the cavity is assessed by dye cavitogram or ultrasonography. Air cavitogram has rarely been used to assess the adequacy of drainage although there are no significant complications with the investigation. [4]

We have performed ultrasonography guided needle aspiration in 40 patients prior to 2002 and subsequently pigtail catheter drainage in 74 patients of amoebic liver abscess. The indications of needle aspiration and catheter drainage are abscess size larger than 10 cm in the right lobe of liver, abscesses in the left lobe, impending rupture of abscess, ruptured liver abscesses and abscesses not responding to medical therapy after 48 hrs of initiation of treatment. On aspiration of pus from the abscess cavity, 50 ml of air is injected and X ray is taken. In case of catheter drainage, daily output of the drainage catheter is monitored. On cessation of drainage for 48 hours, air cavitogram is

done.

The air injected outlines the abscess cavity and decrease in the size of the abscess cavity can be objectively assessed. The presence of air fluid level indicates fluid contents in the abscess cavity. An excess amount of residual fluid requires the pigtail catheter to be repositioned and flushed with IV metronidazole solution. In the absence of air fluid level, the pigtail catheter is removed.

Compared to ultrasonography, air cavitogram has definite advantages as investigative modality in the management of amoebic liver abscess. The procedure is cost effective, assessment by radiologist is not required and it can be performed by the surgeon or treating physician himself. As the amoebic liver abscess is a condition prevalent in the lower socioeconomic strata in the developing countries where an ultrasound may not even be available, we advocate air cavitogram as a very useful diagnostic tool to assess the adequacy of drainage of the liver abscess and plan further management accordingly.

References

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