Value of ultra sound in liver disease

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Liver sonography serves as a useful complementarystudy of other hepatic investigations. Because of theechogenic nature of the normal liver parenchyma, fluidfilled lesions within the liver, such as abscess, areclearly identified. Before making the diagnosis ofabscess or cysts, one must be certain that the sonolucentstructure does not represent a dilated gallbladder.Fluid collections around the liver, such as sUbphrenicabscess, can be effectively evaluated by meansof sonography. Fluid in such cases is located betweenthe right hemidiaphragm and liver, 8S compared to rightpleural effusion in which the fluid is , obviously ,above the right hemidiaphragm.Minimal ascites can be identified as collectionsof fluid around the liver , around the root of themesentery, and adjacent to the urinary bladder.In diffuse disease processes of the liver, as cirrhosis, congestive hepatomegaly, fatty infiltration ,extensive infiltrative metastasis, ultrasound can detectthe changes in the normal appearance of the liver andits size in addition to other diagnostic data as splenomegaly,dilated hepatic veins, ascites, but no specificappearance for each of them. SO the final diagnosis willdepend on the biopsy.The cirrhotic liver presents sonographically asinoreased eohogenioity within the liver parenohyma.Bilharzial oirrhosis shows coarse pattern of the liverparenohyma with periportal fibrosis and evidence of portalhypertension.The findings of ascites, increased eohogenicityof the liver parenchyma and a normal biliary tree in ajaundiced patient is characteristic of hepato cellular,rather than obstruotive.In localized liver masses as abscesses , oystsmetastasis, primary carcinoma, we found that ultrasoundis an exoellent primary tool for their diagnosis. Focalliver metastasis were easily diagnosed by its characteristicultrasonio appearance. Moreover its response to irridationor ohemotherapy oan be followed by serial ultrasound- 56 -examination. Primary hepatic carcinoma can be diagnosedeasily by its characteristic ultrasonic appearance especiallyby its indistinct margin which gradually blend bynormal liver parenchyma. Intraheptic abscesses areeasily diagnosed especially by its well defined marginand its contents. However, sometimes the internal patternof these focal lesions became complex as necrotic metastasis,organised liver abscess during healing processes •••etc., so its differentiation from those of other solidspace - occupying lesions is difficult and we should dependon biopsy to reach the final diagnosis.Ultrasound on other hand recognizes lesions approximately(l~ - 2 ems. in size) and can detail its internal composition.Moreover it can detect other organ pathology in thesame sitting.Our work has been performed on 39 patients , they aregrouped into- Bilharzial cirrhosis 21 cases.Chronic infective hepatitis 10 cases.- Amoebic abscess 1 case.- P,yogenic

abscess 2 cases.- Primary carcinoma I case.- Liver metastasis 4 cases.