Discrimination of benign from malignant hepatic lesions with fast mr imaging sequences

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English SummaryThis study was done on thirty (30) patients who had hepatic focallesions. Theses patients were examined by MRI (T1 , Fast Tz, and Fastheavy Tz sequences), CT (with and without contrast) , us , and colorDoppler US . Complementary histopathological and laboratory datawere also obtained.The aim of this study is to discriminate between the benign andmalignant hepatic focal lesions by using fast MRI sequences.Among the thirty (30) patients examined, eighteen (18) patientshad malignant lesions and twelve (12) patients had benign lesions .”’’’’ Th e incidence of different pathological types were:Begin lesions :Hemangioma 10 % .Degenerative nodule 10%Abscesses 7.2 %FNH3.2%Focal segmental hypertrophy 3.2%Adenoma 3.2%Caroli syndrome 3.2%Ma6gnant lesions :H.C.C47%Metastasis 10 %Cholangiocarcinoma 3 %”’’’’The general signs that favor presence of malignant -lesion were:1- Presence of capsule in TI.2- Presence of portal vein thrombosis.3- lli defined margin of the lesions.4- Presence of contour bulge.5- Presence of different types of degeneration.6- Hyperintensity in Fast Tz with decreased the signal in Fastheavy Ts.7- Multiplicity of the lesions.** Comparing the different modalities as regard the sensitivity,specificity, positive and negative predictive values:-All the modalities had 100% sensitivity.-The MRI was the most specific technique 100% , then CT 75% , thenUS 58%.-Also all the modalities had 100%negative predictive values.-The MRI had 100 % positive predictive value, then the CT 86 % , thenthe US 78%.1o* Comparing the different modalities in detection of portal veinthrombosis :-Color Doppler was considered the gold standard with 100% sensitivity, specificity, negative and positive predictive values.-MRI had very high score, (100% sensitivity, 100% specificity, 100%negative and positive predictive values) .-Then come the US (80% sensitivity , 100 specificity ,100% positivepredictive value, and 90.9”10 negative predictive value) .Then, the CT (50% sensitivity, 100 specificity ,100%positive predictive value, and 80% negative predictive value) .** Although the high specificity of the MRI, there are somelimitation encountered with its use:-The non-existence of constant techniques makes it difficult tostandardize parameters for each technique.-There is practical and economical difficulty concerning the time ,patient cooperativity and cost.-Certain skills are needed to interpret MR images particularly for nonradiologist.-The rather limited capability of assessment the rest of the abdomen onthe same sequence.