

Benign tumours

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A number of pathologies produce focal liver lesions, and the three most common benign hepatic tumours are haemangiomas, focal nodular hyperplasia (FNH) and hepatic adenomas. These lesions are common and often discovered incidentally on cross-sectional imaging. The main clinical challenge is confirming the benign nature non-invasively where possible. Hepatic adenoma

Adenomas are benign liver tumours seen almost exclusively in women aged between 25 and 50 years. These well-defined and vascular lesions are classically associated with use of the oral contraceptive pill. Adenomas are recognised as having malignant potential, with up to 10% developing into HCC. The risk of rupture and malignancy means that surgical excision is generally recommended if >5 cm in size, although some lesions may regress after discontinuation of the oral contraceptive pill. Focal nodular hyperplasia (FNH) is an unusual but not uncommon benign condition of unknown aetiology, in which there is a focal overgrowth of functioning liver tissue supported by fibrous stroma. Patients are usually middle-aged women, and there is no association with underlying liver disease. Ultrasonography shows a solid tumour mass. Contrast CT or MRI may show central scarring and a hypervascular lesion. FNH contains both hepatocytes and Kupfer cells. MRI using liver-specific contrast agents may be useful in determining the hepatocellular origin of FNH and allowing differentiation of FNH from metastatic cancer. FNH does not have any malignant potential and, once the diagnosis is confirmed, does not require any treatment or follow-up.

Haemangiomas These are the most common benign liver lesions, and the reported incidence has increased with the widespread availability of diagnostic ultrasonography. They consist of an abnormal plexus of vessels, and their nature is usually apparent on ultrasonography. If diagnostic uncertainty exists, CT scanning with delayed contrast enhancement shows the characteristic appearance of slow contrast enhancement owing to small vessel uptake in the haemangioma. Often, haemangiomas are multiple. Lesions found incidentally require radiological confirmation of their nature and no further treatment. Diagnosis is usually incidental, and surgical resection is only recommended if patients are significantly symptomatic or significant diagnostic uncertainty remains after multimodal imaging.

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