

Introduction

Liver diseases are common conditions that strike patients all over the world , more so in Egypt . Focal liver lesions compose an important category of liver diseases.

The first surgical removal of a portion of the liver was recorded in 1716 by Berta, who amputated the protruding portion of the liver in a patient with a self-inflicted knife wound. In 1886 Luis, excised a solid tumor of the left lobe of the liver by cutting through a pedicled lesion; death due to haemorrhage from the stump occurred 6 hours later. In 1910 Weddel, performed a near-total right lobectomy for a primery tumour; the patient survived 9 years. In 1949 Wangesteen removed the entire right lobe of the liver for metastatic carcinoma of the stomach ⁽¹⁾

In 1963 Thomas Starzl, carried out the first liver transplantation in Denver .He reported the operative technique he used and the experience with his first cases. ⁽²⁾

Focal liver lesions are clssified into benign and malignant lesions . Benign lesions are rare and less common than malignant lesions ; Haemangioma is the most common benign liver lesion. ⁽³⁾

The most common focal lesions of the liver are metastatic tumours. They constitute about 60-70% of all cancers . Seconderies in the liver are 30 times commoner than primary tumors of the liver.Primary tumours in the breast, lung, pancreas, stomach, large intestine, kidney, ovary, uterus, & prostate accounts for 70 % of cases.Hepatocellular carcinoma is the most common primery malignant liver lesion .It cosistitutes about 2-3% of all cancers. ⁽⁴⁾

The Couinaud classification divides the liver into 8 independent segments ,each of which has its own vascular inflow, outflow and biliary drainage . Because of this division into self-contained units,each can be resected without damaging those remaining segments.For the liver to remain viable , resections must proceed along the vessles that define the prepheries of these segments ⁽⁵⁾.

Resection is a main line of treatment in many lesions such as haemangioma , cholangiohepatoadenoma and heptocellular carcinoma ⁽⁶⁾.

The goals of the evaluation of a liver mass are to establish the diagnosis, to determine whether surgical treatment is warranted, and, if so, to judge resectability with an appropriate procedure. The diagnosis of a liver mass can often be achieved with knowledge of possible pathologies, a complete history and examination, and a logical cost-effective and efficient application of modern radiologic and laboratory tests ⁽⁷⁾.

The clinical picture include asymptomatic patient which occur in small benign lesions . Abdominal pain in right hypochondrium . Anorexia , weight loss and fever occure more in malignant lesions and liver abscess . Jaundice ,abdominal discomfourt ,hepatomegaly, compression manifestation, ascitis ,gasterointestinal bleeding from osephegial and gasteric varices and abdominal mass in malignant lesions and moderate and large benign lesions ⁽⁸⁾ .

Laboratory investigations play an important role in diagnosis as alpha-feto protein that increased in malignant lesions and liver function tests as alkaline phosphatase , serum bilirubin ,SGPT,SGOT and prothrombine time and activity and compelet blood picture ⁽⁹⁾ .

The commonly used radiological investigations in the evaluation of hepatic masses include plain X-ray , ultasonography (3-D ultrasonography and coulour doppler ultrasonography) , computed tomography (CT) scan , magnetic resonance imaging (MRI) and Selective hepatic angiography ⁽¹⁰⁾ .

Biopsy of the liver remain to be the final conclusive criteria in the diagnosis . Biopsy may be performed percutaneously (with or without CT or ultrasound guidance), laparoscopically, or at laparotomy. The biopsy may be for cytology only (fine-needle aspiration [FNA]) or for histology (larger-bore core biopsy). Guided FNA has an overall sensitivity of 77% to 94% and may allow a distinction between primary and secondary malignancy . The risks associated with needle biopsy include bleeding, infection, needle track seeding of tumor, and sampling errors. Laparoscopy with biopsy has been used to evaluate liver masses and to avoid laparotomy ⁽¹¹⁾ .

Treatment of focal liver lesions ranges from just surveillance up to liver transplantation . Surgical resection ,radiotherapy ,chemotherapy, immunotherapy ,gene therapy , arterial embolisation and thermal therapy as cryotherapy are different modalities of treatment ⁽¹²⁾ .