PRIMARY LIVER NEOPLASMS

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Classifications

- BENIGN:
- Hemangioma
- Adenoma
- Focal nodular hyperplasia(FNH)
- MALIGNANT:
- Hepatocellular carcinoma.
- Cholangiocarcinoma.
- Hepatoblastoma.
- Sarcoma.
- Others.

Hemangioma

- Most common benign tumors.0.5-5%
- Variable sizes, single or multiple,more than 6cm Giant
- Mostly asymptomatic, pain,heaviness,early statiety,complications.
- Diagnosis: USG,CT,MRI,Angiography,Isotopic scan. Needle Bx contraindicated.
- Management: observation,resection,embolization.

HCA

- RARE, young females 20-40 years, lined to hormonal therapy(ocp,hrt).
- Can happen in males.
- Hypervascular lesion , if big can be complicated: hemorrhage,rupture,degeneration to ca.
- Diagnosis: USG,CT,MRI, NEEDLE BX and histopathology.
- Management: stop hormonal therapy, resection.

FNH

- No tendancy to malignancy
- Central scar(fibrosis)
- Affect both sexes, result from congenital arteriovenous malformation.
- Diagnosis: USG,CT,MRI, RARELY needle BX.
- Management: observation, surgery if diagnosis is unclear.

HEPATOCELLULAR CARCINOMA(HCC)

- MOST COMMON PRIMARY MALIGNANCY. UP TO 20/100000
- MORE COMMON IN MALE/FEMALE
- GEOGRAPHIC VARIATION(HIGH IN SOUTH EAST ASIA AND TROPICAL AFRICA).
- INCREASING IN THE WEST(STEATOHEPATITIS).
- 5TH MOST COMMON CANCER WORLDWIDE
- 3d MOST COMMON CAUSE OF CANCER DEATH
- HEP.B TREATMENT &VACCINATION REDUCED THE INCIDENCE

RISK FACTORS

- HEPATITIS B &C
- CIRRHOSIS REGARDLESS OF THE ETIOLOGY.
- ALCOHOLISM
- HEMOCHROMATOSIS
- WILSON’S DISEASE
- AFLATOXIN
- OTHERS: DM,ADENOMA

PATHOLOGY

- GRADES: WELL DIFFERENTIATED,MODERATE,POOR
- NO RELATION BETWEEN DEGREE OF DIFF. AND PROGNOSIS.
- GROSS PATHOLOGY:

- HANGING
- PUSHING TYPE: WELL DEMARCATED AND CONTAINS FIBROUS CAPSULE
- INFILTRATIVE
- SMALL TYPE
- MULTINODULAR

PATHOLOGY-SPREAD

- TO LYMPH NODES
- PERITONEUM
- LUNGS
- BONE
- ADRENALS

DISTINCT VARIANTS

- FIBROLAMELLAR: ENCAPSULATED,? BETTER PROGNOSIS
- MIXED HEPATOCELLULAR –CHOLANGIOCELLULAR
- CLEAR CELL
- PLEOMORPHIC OR GIANT CELL VARIANT
- CHILDHOOD VARIANT

CLINICAL PRESENTATION

- RIGHT UPPER QUADRANT PAIN, WEIGHT LOSS,PALPABLE MASS
- ANOREXIA ,NAUSEA,LETHARGY
- RARELY HEPATIC DECOMPENSATION IN A KNOWN CIRRHOTIC OR UNRECOGNIZED CIRRHOSIS.
- MORE RARELY HEMOPERITONEUM DUE TO RUPTURE LEADING TO HYPOVOLEMIC SHOCK.
- RARELY, BUDD-CHIARI,OBSTRUCTIVE JAUNDICE,HEMOBILIA, PARANEOPLASTIC SYNDROME:HYPOGLYCEMIA,HYPERCALCEMIA,ERYTHROCYSTOSIS.
- SOMETIMES INCIDENTAL :FOLLOW UP OF PATIENTS WITH RIS FACTORS

DIAGNOSIS-IMAGING

- TRIPHASIC CT SCAN: EARLY ARTERIAL FILLING AND DELAYED VENOUS WASHOUT.
- MRI.
- ULTRASONOGRAPHY.
- PET/CT.

DIAGNOSIS-LABS

- TUMOR MARKER: AFP SPECIFIC IF MORE THAN 400 ng/dl.
- NOT ALWAYS RAISED IN CLASSICAL HCC,IN 30% NEGATIVE
- NORMAL IN FIBROLAMELLAR VARIANT

HOW TO MAKE DIAGNOSIS

- IF CIRRHOSIS IS PRESENT, OR HBV ORHCV ARE PRESENT, WITH ELEVATED AFP

THE DIAGNOSIS IS MADE WITHOUT BIOPSY.

- IF NO CIRRHOSIS, AFP IS NOT HIGH,HBV,HCV ARE NEGATIVE ,PROCEED TO BIOPSY
- PORTAL VEIN THROMBOSIS WITH THE PRESENCE OF LIVER LESION: HCC

MANAGEMENT-CURATIVE

- RESECTION: FEASIBLE WHEN THERE IS NO CIRRHOSIS OR CHILD-PUGH A CIRRHOSIS OR FIBROLAMELLAR VARIANT.
- TRANSPLANTATION: CRITERIA, SINGLE LESION LESS THAN 5 CM,OR 3 LESIONS EACH LESS THAN 3 CM.
- PREFERABLY CADAVERIC DONOR.

MANAGEMENT -PALLIATIVE

- RF:
- CHEMOEMBOLIZATION:
- ETHANOL INJECTION:
- SORAFENIB:
- SYSTEMIC CHEMOTHERAPY:
- EXTERNAL BEAM RADIATION: TARGETED

PROGNOSIS

- WITH CIRRHOSIS: POOR SURVIVAL IS 3-6 MONTHS FROM DIAGNOSIS/NO TREATMENT.
- IF TREATED SURVIVAL IS BETTER,GOES TO YEARS
- WITH TRANSPLANTATION: 80% EXCEED 5 YEARS,IF INDICATIONS RESPECTED.
- IF NO CIRRHOSIS,AND RESECTION: CURED.

CHOLANGICARCINOMA

- 2nd MOST COMMON PRIMARY LIVER CANCER.
- ARISES FROM BILIARY EPITHELIUM
- NOT THE COMMONEST SITE FOR CHOLANGIOCARCINOMA
- DIAGNOSED USUALLY LATE UNTIL THERE IS BILIARY OBSTRUCTION AND JAUNDICE, THAT'S WHY PROGNOSIS IS POOR.
- IF DIAGNOSED(NEEDLE BX) RESECTION IS THE IDEAL TREATMENT.
- RISK FACTORS: PSC,ORIENTAL CHOLANGIOHEPATITIS

HEPATOBLASTOMA

- LIVER CANCER OF INFANTS AND CHILDREN.
- DIAGNOSIS: PALPABLE ABDOMINAL MASS, BX,INCREASED AFP MORE THAN 500ng/dl.
- ARISES FROM IMMATURE LIVER CELLS
- TWO TYPES: EPITHELIAL TYPE, MIXED EPITHELIAL AND MESENCHYMAL TYPE.
- CO-EXISTE WITH OTHER SYNDROMES: TRI 18,21,FAP
- CAN GIVES METASTASES.

HEPATOBLASTOMA-TREATMENT

- NEOADJUVANT CHEMOTHERAPY
- SURGICAL RESECTION.
- LIVER TRANSPLANTATION.
- PROGNOSIS: IF METASTASIS----POOR

  IF RESPONSE TO NEOADJUVANT CHEMO.FOLLOWED BY RESECTION OR TRANSPLANTATION SURVIVAL IS CLOSE TO 100%.