LIVER MASS

นศพ. รัตยา พรโพธิสถิตย์ ปี4
นพ. ปรมินทร์ มวงแก้ว

Hemangioma

- HX — Same as cyst
- PE — Same as cyst
- Investigation
  - US — Well-defined hyperechoic nodule
  - CT
    - A-phase — Interupted peripheral nodular enhancement
    - V-phase — Centripedal fill-in
    - D-phase — Continuous enhancment
  - MRI
    - Same as CT
    - Hypointense in T1
    - Hyperintense in T2

FNH

- HX
  - Same as cyst
  - Not related with hormone
- PE — Same as cyst
- Investigation
  - US — Hyper or hyporechoic nodule
  - CT
    - A-phase — Arterial enhancement
    - V-phase — No wash out, iso-density
    - D-phase
      - No wash out, iso-density
      - Central scar
  - MRI
    - Same as CT
    - Central scar in T2
    - Uptake hepatocyte specific agent (Primovist, Multihance)

BENIGN

HA

- HX
  - Same as cyst
  - Malignant trasformation
  - Tendency for bleeding or rupture
  - Risk factor
    - Oral contraceptive
    - Steroid
- PE — Same as cyst
- Investigation
  - US — Hyper or hyporechoic nodule
  - CT
    - Same enhancement as FNH but no central scar
    - Fat component
    - Bleeding
  - MRI
    - Same as CT
    - NO uptake hepatocyte specific agent (Primovist, Multihance)

Simple cyst

- HX
  - Asymptomatic
  - Compression symptom
  - Pain (Huge cyst)
- PE
  - No abnormal finding
  - Mass
- Investigation
  - US
    - Well-defined anechoic
    - Posterior acoustic enhancement
    - No septation, no mural nodule, no papillary projection
  - CT
    - Homogenous hypoattenuation
    - Inperception, non-enhacing cyst wall
    - No septation, no mural nodule, no papillary projection
  - MRI
    - Same as CT
    - Hypointense in T1
    - Hyperintense in T2

MALIGNANT

ICC

- HX
  - Symptom
    - NO jaundice
    - Pain
    - Weight loss, loss of appetite
  - Risk factor
    - Parasite
    - Primary sclerosing cholangitis
- PE
  - NO sign of chronic liver
  - Hepatomegaly
  - LN
- Investigation
  - LAB — CEA, CA19-9
  - US
    - Hypo or hyperechoic
    - Intrahepatic bile duct dilatation peripheral to mass
  - CT/MRI
    - A-phase — Peripheral rim enhancement
    - V-D phase — Preogressive enhancement

HCC

- HX
  - Symptom
    - Jaundice (decompensated cirrhosis)
    - Pain
    - Weight loss, loss of appetite
  - Risk factor — Cirrhosis
    - Alcohol
    - Chronic viral hepatitis
    - Fatty liver
    - Hemochromatosis (Thalassemia)
- PE
  - Sign of chronic liver
    - Parotid gl enlargement
    - Gynecomastia
    - Palmar erythema
    - Spider nevi
    - Testicular atrophy
  - Sign of PHT
    - EV (from EGD or CT)
    - Superficial vein dilatation (Caput medusae)
    - Ascitis
    - Splenomegaly
    - Rectal varies
  - Sign of hepatic encephalopathy
    - Alteration of mental status
    - Flapping tremor
  - Hepatomegaly
  - LN
- Investigation
  - CT/MRI
    - A-phase — Arterial enhancement
    - V-phase — Wash-out
    - D-phase — Wash-out
  - LAB — AFP
  - US
    - Cirrhosis
      - Lt lobe , caudate lobe enlargement
      - Liver nodularity
      - Coarse echogenic
    - Mosaic pattern
      - Hyperechoic center
      - Hypoechoic halo
      - Post. lateral shadowing
      - Post. hyperechoic

Liver metas

- HX
  - Symptom
    - Colorectal
      - Bowel habits change
      - Bloody stool
      - Bloating, pain
    - Breast
      - Mass
      - Dischargge
      - Skin dimpling
      - Nipple retraction
    - Ovary — Pain
    - Pancreas
      - Jaundice
      - Pain
    - Lung
      - Cough
      - Chest pain
      - Dyspnea
  - Weight loss, loss of appetite
- PE
  - LN
  - Hepatomegaly
  - Mass at primary cancer
- Investigation
  - US — Hyper or hypoechoic
  - CT
    - Hypervascular (Enhancement at A-phase)
      - Rencal cell CA
      - PNET
    - Hypovascular (Progressive enhancement) — Mostly liver metas except PNET and renal cell CA
  - MRI — Same as CT