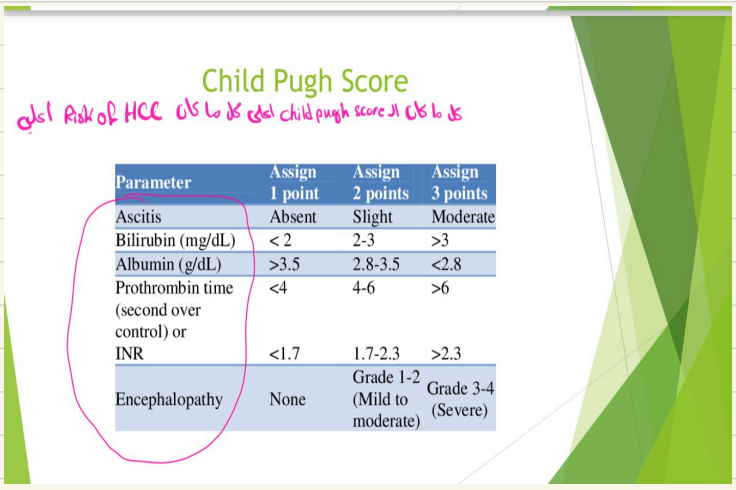
HCC

- its linked to chronic Hepatitis mostly (may Developed spontaneously But very Rare)

- its Most common primary Tumor in liver {Note:- Most common Tumors of Liver are 2ry in orgin}
- Most common occur in Alcoholic or HCV paient
- Age 50-60
- Late Diagnused Because of it symptone so Delayed 6-20 months
- Risk faetor :- ① HCV ② Alcoholic ③ HBV ④ cirrhosis pt ⑤ Heridilary hemochromatosis ⑤ idiopathic
  - HCV & Alcoholic → Most common
  - HBV → can occur Also in Absence of chirosis

Morphology

- may large solitar (Not cirrhosis)
  or
  multinodular in same lobe or scattered (cirrhosis pt)
  or
  infitrate Diffusly



Parameter	Assign 1 point	Assign 2 points	Assign 3 points
Ascitis	Absent	Slight	Moderate
Bilirubin (mg/dL)	< 2	2-3	>3
Albumin (g/dL)	>3.5	2.8-3.5	<2.8
Prothrombin time (second over control) or INR	<4 <1.7	4-6 1.7-2.3	>6 >2.3
Encephalopathy	None	Grade 1-2 (Mild to moderate)	Grade 3-4 (Severe)

Staging

TNM stage system

four feature :- ① seviorty of liver Disease
② size of tumor
③ local Extension of Tumor
④ Metastisis or Not

هو فقط طلب
تعرف اذا هو اقل من 2cm و لا اكثر

	Primary tumor (T)	Regional lymph nodes (N)		Distant metastases (M)	
T1a	Solitary tumor ≤2 cm with/without vascular invasion	Nx	Regional lymph nodes cannot be assessed	M0	No distant metastasis
T1b	Solitary tumor >2 cm without vascular invasion	N0	No regional lymph node metastasis	M1	Distant metastasis
T2	Solitary tumor >2 cm with vascular invasion or multifocal tumors, none >5 cm	N1	Regional lymph node metastasis		
T3	Multifocal tumors at least one of which is >5 cm				
T4	Single tumor or multifocal tumors of any size involving a major branch of the portal vein or hepatic vein or tumor(s) with direct invasion of adjacent organs other than the gallbladder or with perforation of visceral peritoneum				
Stage					
Stage IA	T1a	N0	M0		
Stage IB	T1b	N0	M0		
Stage II	T2	N0	M0		
Stage IIIA	T3	N0	M0		
Stage IIIB	T4	N0	M0		
Stage IVA	Any T	N1	M0		
Stage IVB	Any T	Any N	M1		

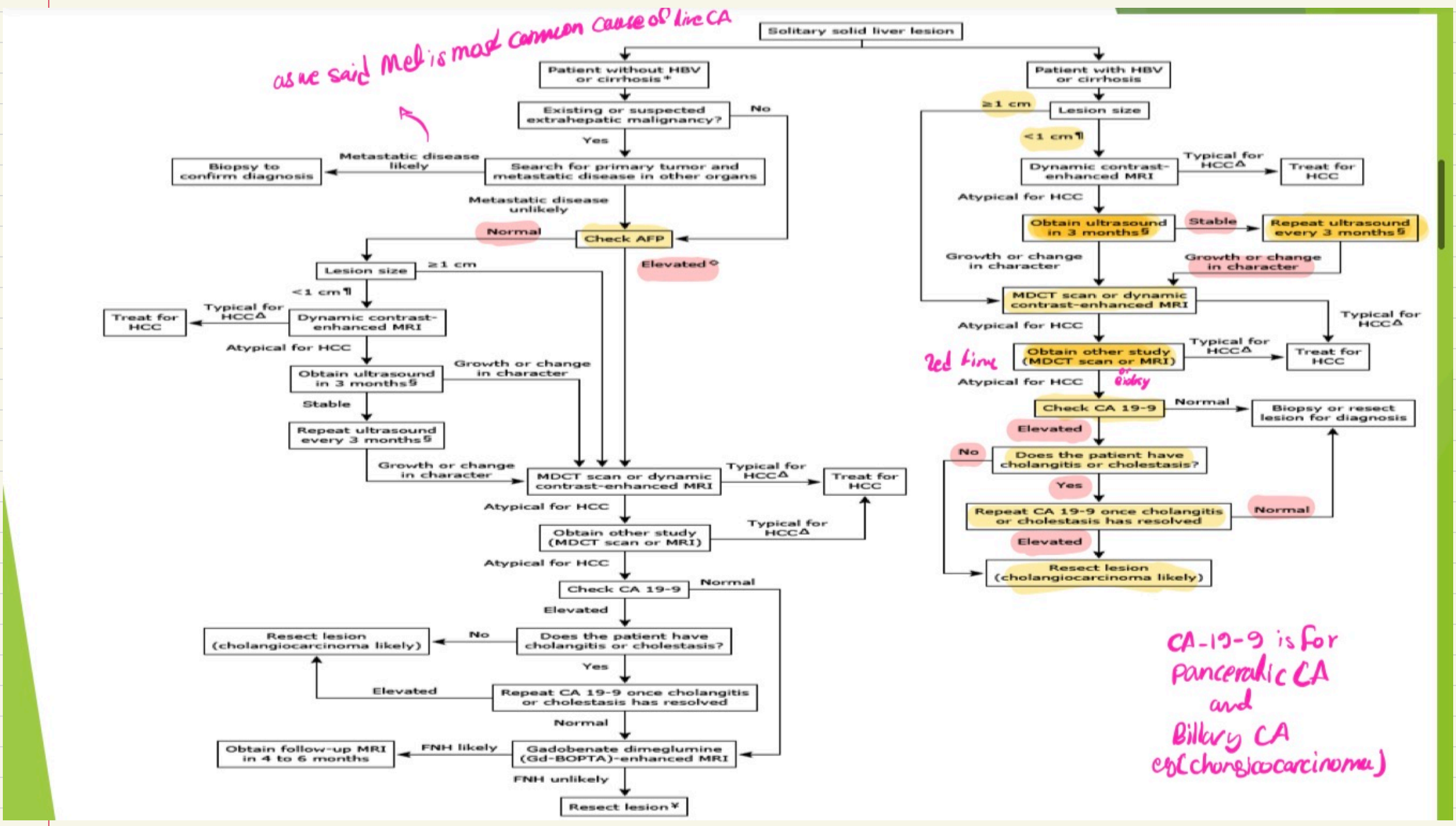
Labrotory study

α-feto protein :- must Be 500 and more (and The Tumor will Be 5cm⊿x mass)
(so Not Effective to detect in erly stges)

Note:- α-FP:- more than 20 is Abnormal

αFP:- ① HCC (more than 500 suggest tumor size of 5cm and Above)
② gonadal CA
③ pregnecy
④ cirrohtic pt with HCV or HBV But without HCC

How to Approch !!



< 1cm → ultrasound every 3months Conce you Notice that is more then 1cm Do.....

> 1cm → Dynamic MRI or multidelictor CT

.... so you susbect tumor what to do ??

Firstly :- ultra sound for every 3 months (until size of Tumor exced 1cm)

2ed :- Triphesic CT with contrast (Delayed phase)

3ed :- Reconfirm By oTher Modality (MRI)

4Th :- All of The previous strategy show Nothing But you still susbect Tumor → Biobsy (Not Necssery for Hcc p.t to Do Biobsy)

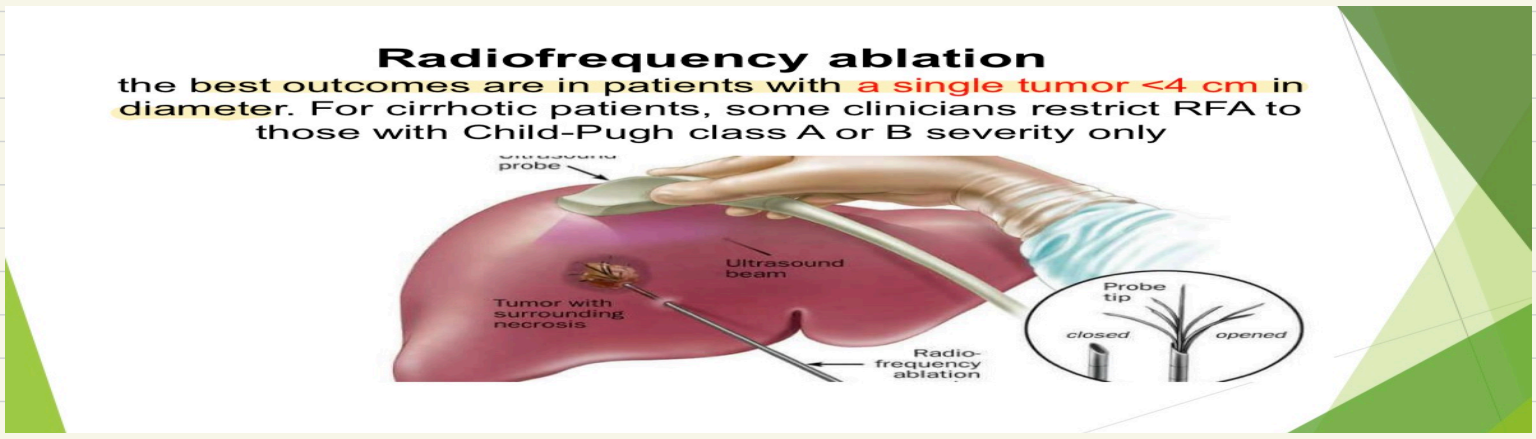
Note :- Triphasic CT with Contrast only show primary Tumor (Hcc) BuT 2ry Tumor (Mets) Not take contrast at All (This Helps Me alot)

Treatment

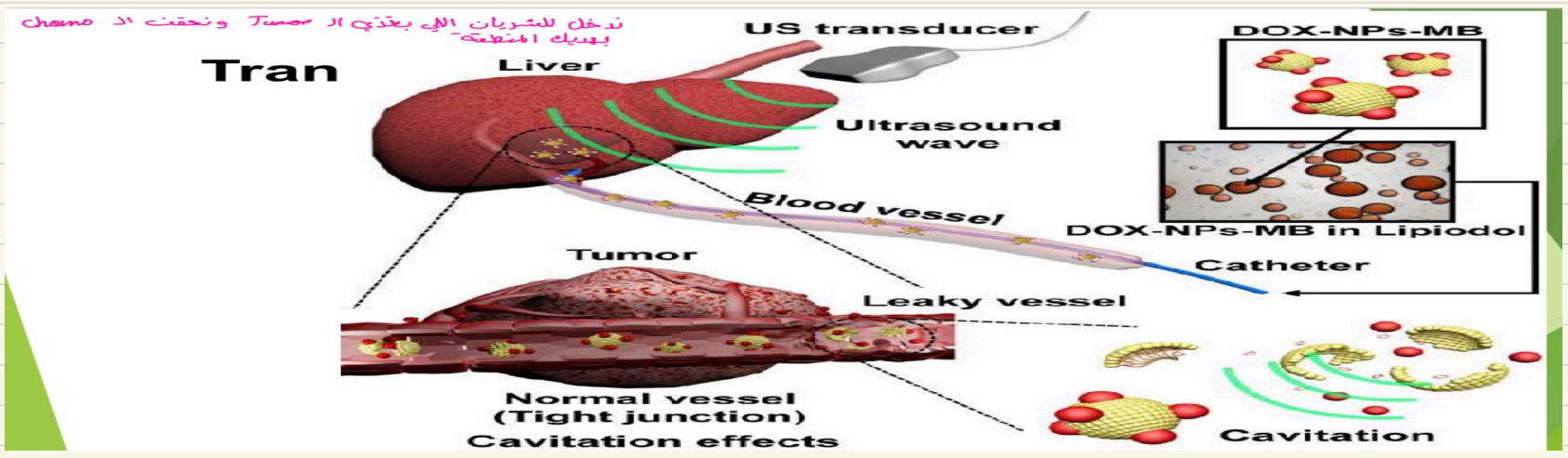
- only surgery
- its chemo-Radio Resistance Tumor (so giving I.V chemo is Not Helpfull at All)

- 2 cm and Below → Surgical Removal

- 2cm - 5cm → Radiofrequency Ablation
  (بنحط مباشرة على الTumor وبنشيله catheter بنحط)



- 5cm and Above → chemoembolization (5cm)
  (بنروح على الArt وبنوصل على الHepatic Art وبنضخ الكيماوي مباشرة على قاد المكان)



- Best choice is liver Transplantation (مش كل المرضى بنعملهم liver transplant)

But Not All can get liver transplant
1) only pepole with liver chirosis p.t
2) solitary Nodule Bellow 5cm
3) 3 Nodules Not larger 3cm
} → Milan criteria

- Adjuvant Antviral Therapy
  - study shows that treatment For chronic HBV on Risk of HCC, Reduce Risk About 50-60%
  - study shows That treatment for chronic HCV on Risk of HCC, Reduce Risk BUT Not eliminat

- percutanous ethanol or Acetic Acid Ablation

for small HCCs for pt who cannot compasate Resection
Due to Thier Poor function of liver
chemoembolz → Radio then زيادة قوية