



# **Normal and abnormal liver in ultrasound**

**Important signs should be looked to perform both a morphological and functional assessment:**

**1- liver size.**

**2-shape and outline**

**3-appearance and texture (e.g. fatty liver infiltration).**

**4- liver lesions.**

**5-Check the patency of hepatic and portal veins**

**6- check gall bladder**

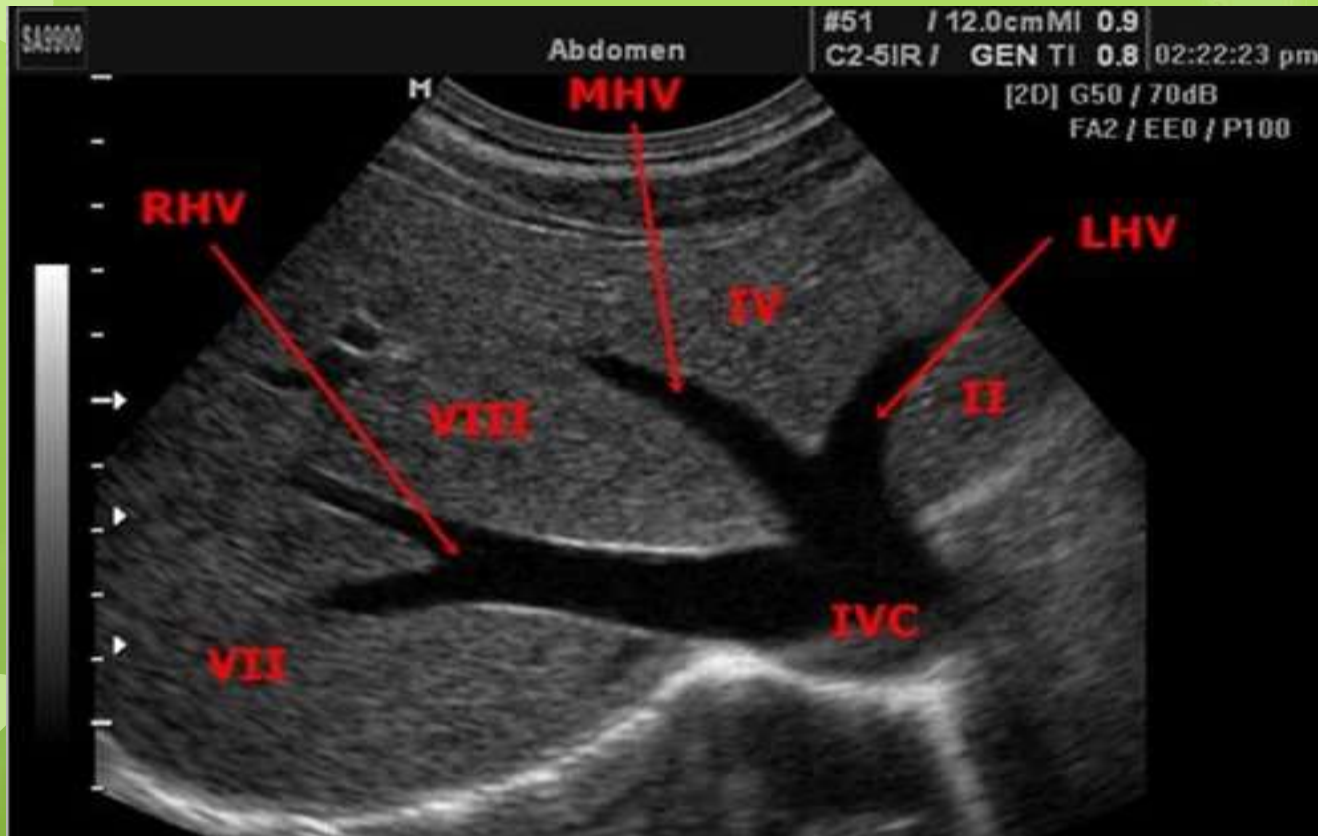
# Normal liver

homogeneous echogenicity lies midway between  
more echogenic pancreas and less echogenic spleen  
smooth outline  
no focal lesion



# Hepatic veins and IVC

seen with thin wall



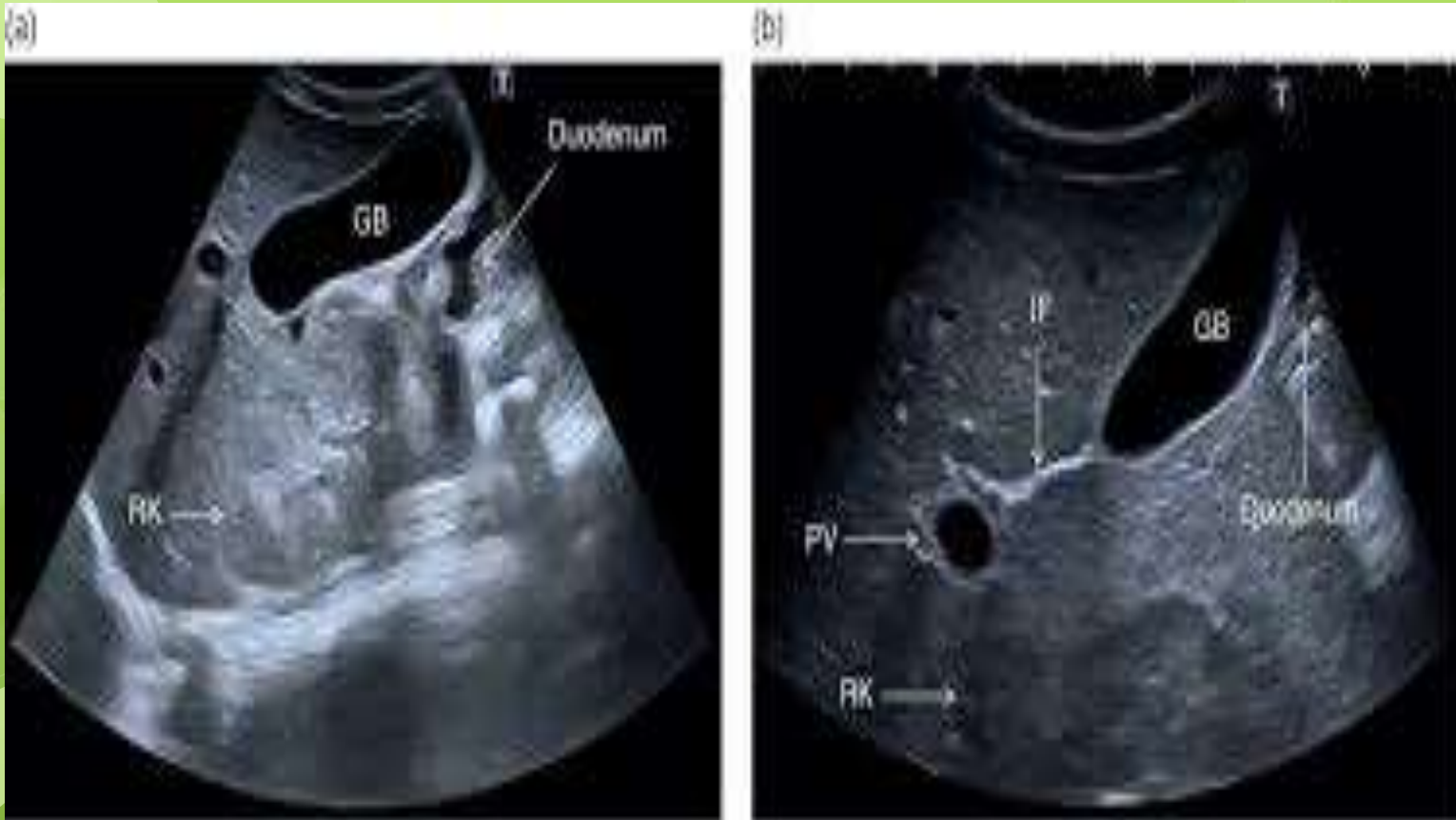
# Portal veins

seen with echogenic wall



# Gall bladder

thin wall echo free pear shaped structure





# Abnormal liver

fatty liver (enlarged in size and echogenic )



# Abnormal liver

metastasis (bulls eye ,hypo echoic with central hyper echoic area)





# Abnormal liver

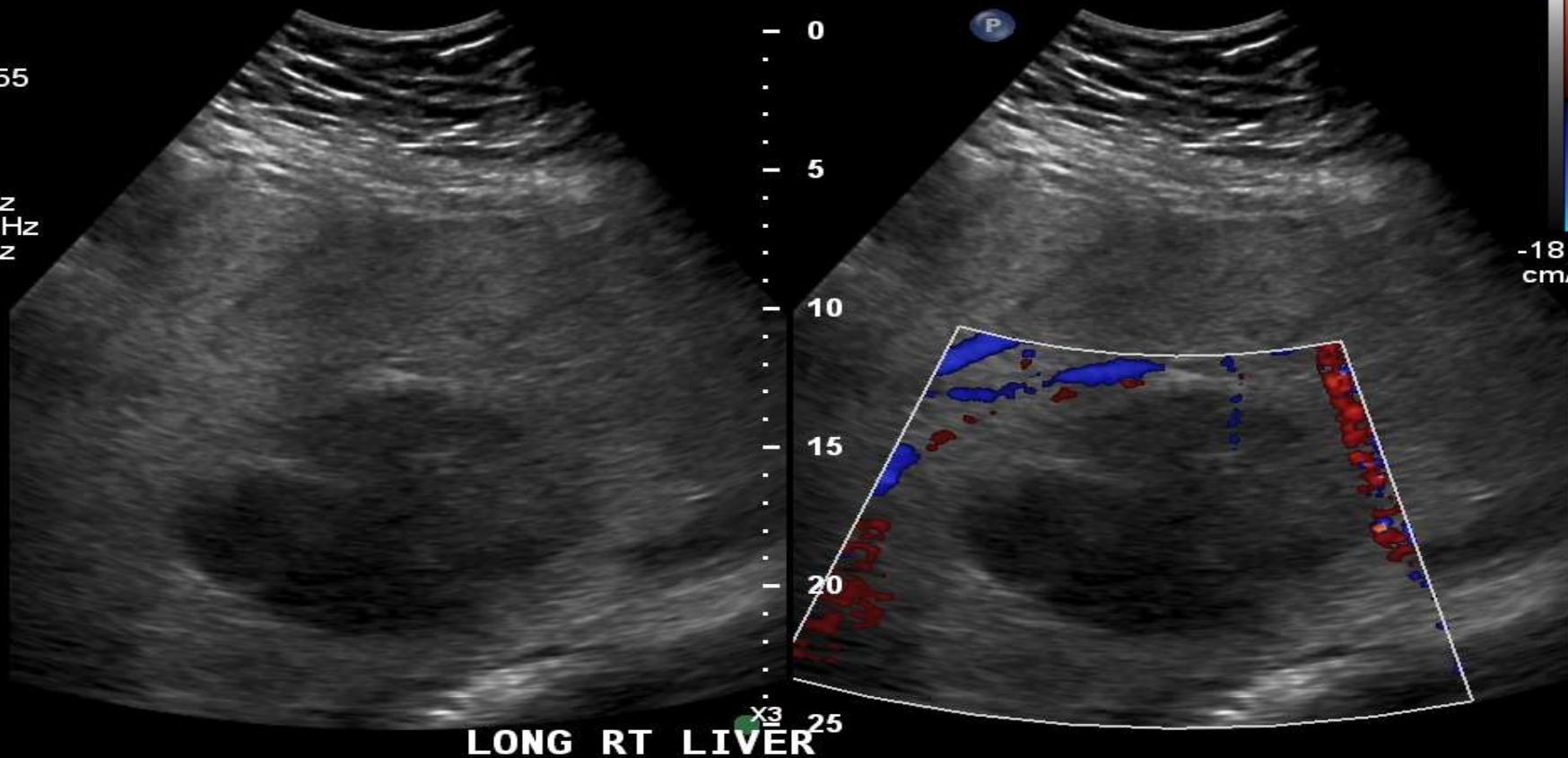
Liver abscess(thick wall with central necrosis)

Abd Gen  
C5-1  
4Hz

2D  
58%  
Dyn R 55  
P Med  
HPen  
CF  
50%  
960Hz  
WF 52Hz  
2.0MHz

TIS0.7 MI 1.2

M4  
+18.5  
-18.5  
cm/s

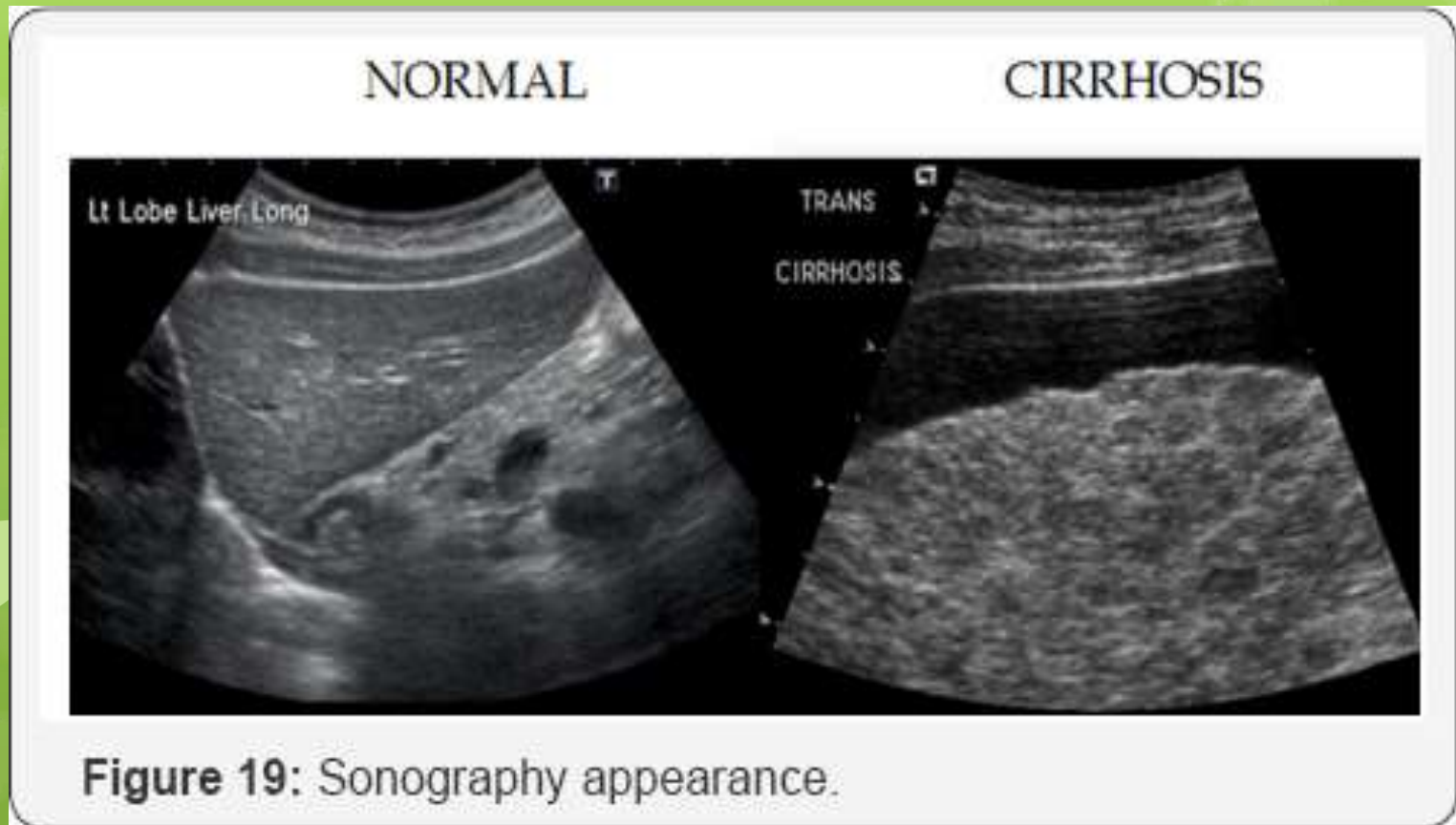


# Abnormal liver

calculus cholecystitis(gall stone , thick wall and sludge)

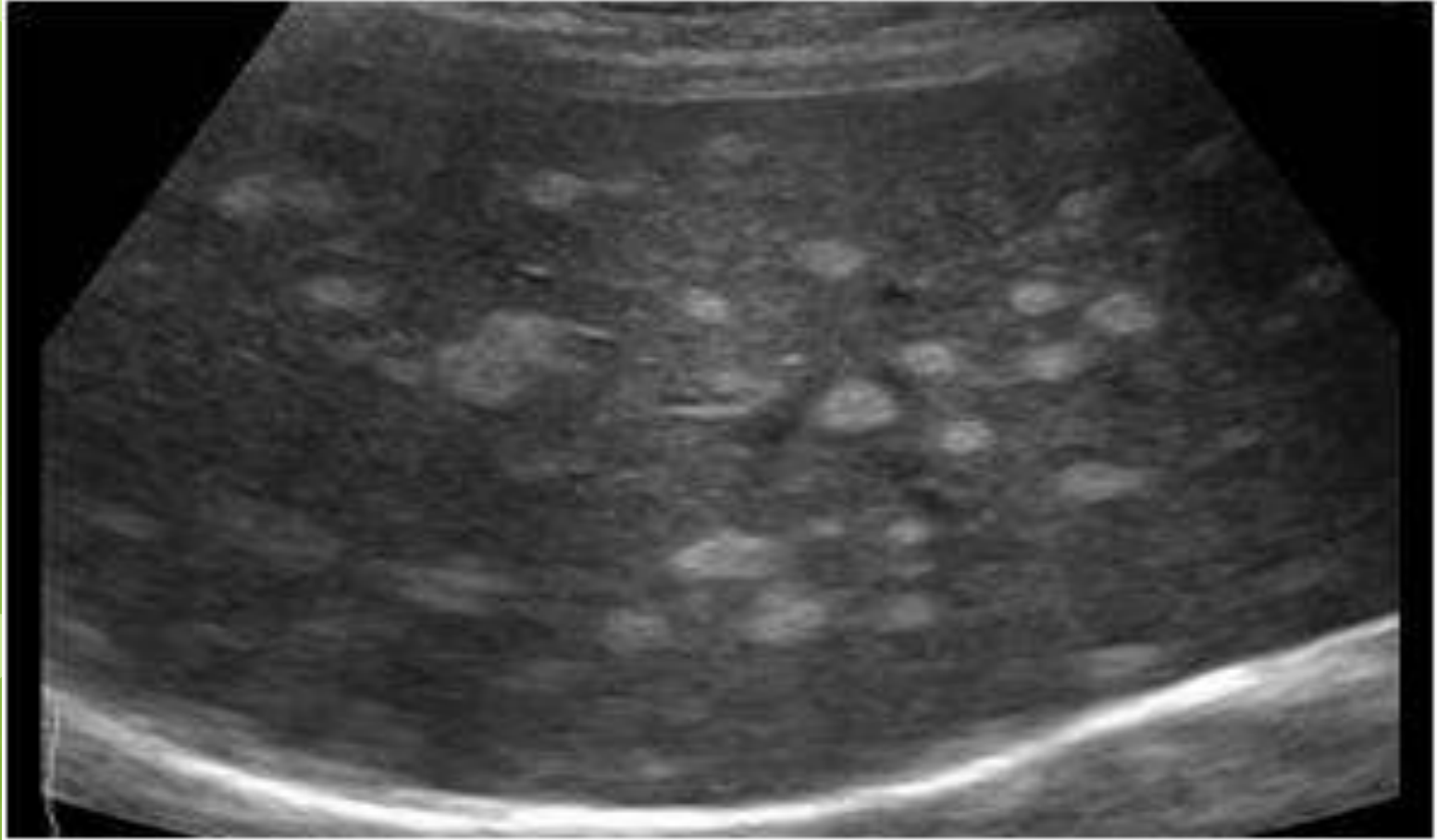


Abnormal liver  
nodular liver cirrhosis( small size  
coarse texture, multiple nodules,  
irregular outline



# Abnormal liver

multiple well defined hyperechoic lesions  
( metastasis )



# Abnormal liver

illdefined hyperechoic lesions





# Abnormal liver

haematoma( illdefined outline hyperechoic area





# Abnormal liver

hepatocellular carcinoma(heterogeneous echogenicity with irregular outline)



*Thank you*