

# Veterinary Bioscience: Metabolism

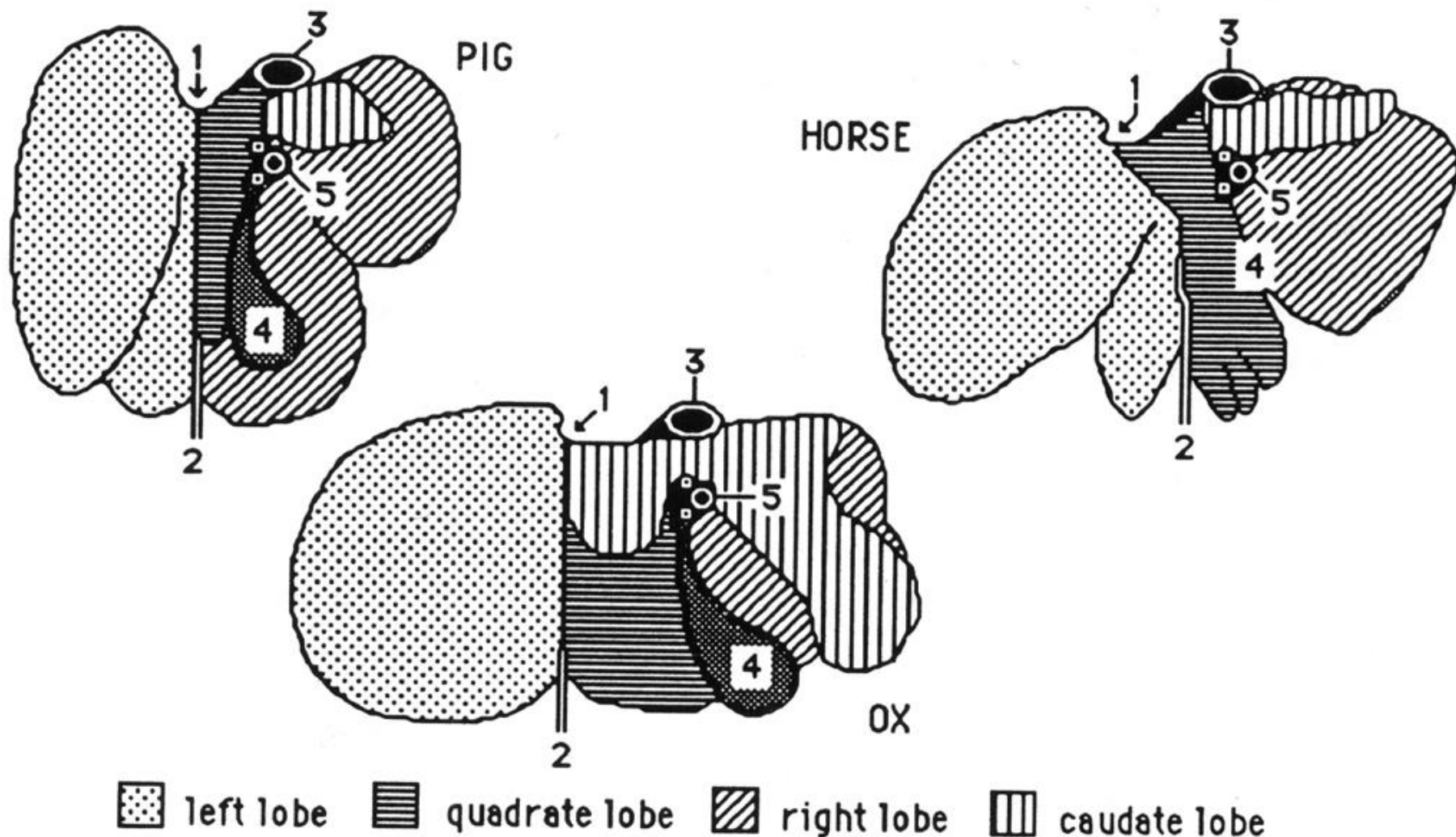
DVM Year 1

VETS30017 / VETS90116



## Gross anatomy of the liver: species comparisons

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**FIGURE 4-5. Livers of pig, horse, and ox, visceral surfaces.**

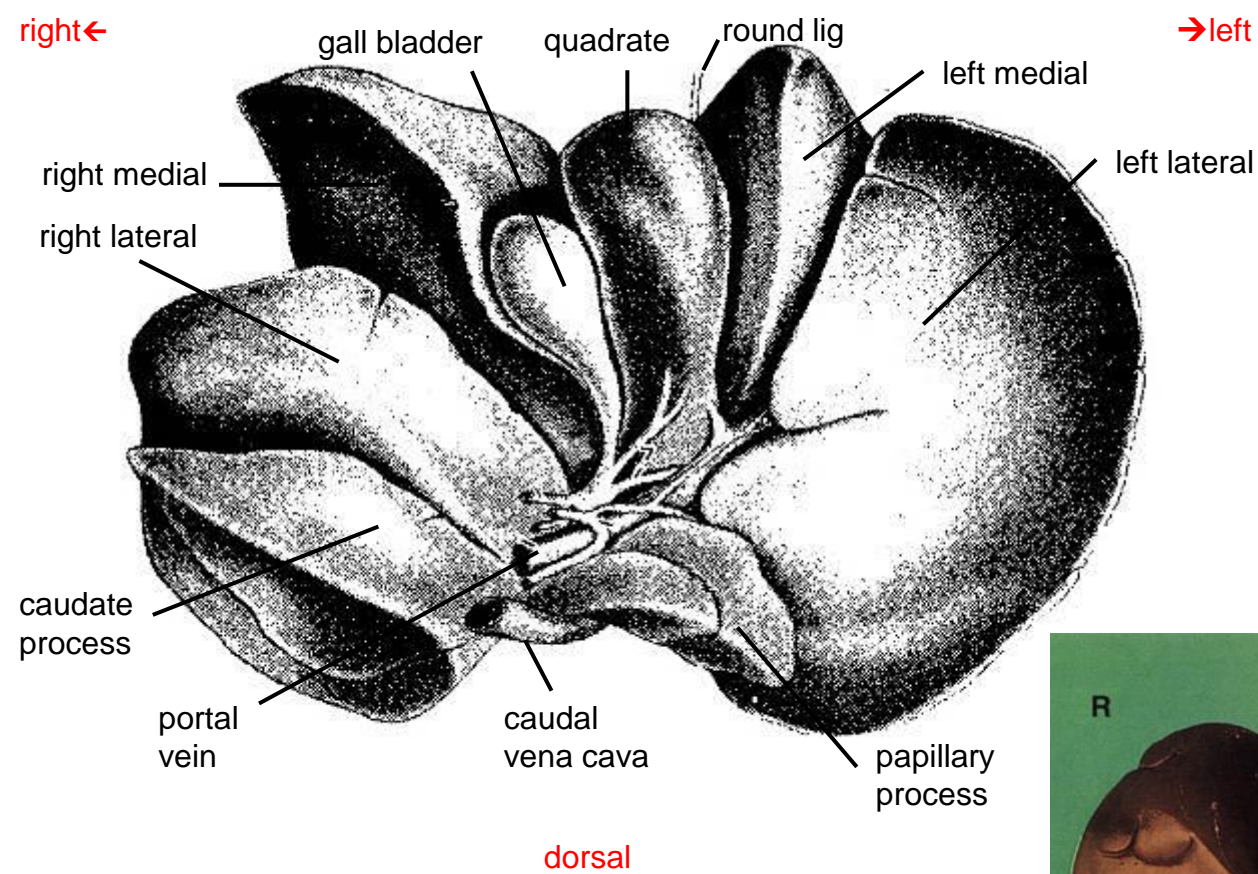
1. Esophageal notch
2. Round ligament of liver
3. Caudal vena cava

4. Gallbladder, or point where gallbladder would have been in horse
5. Hepatic porta

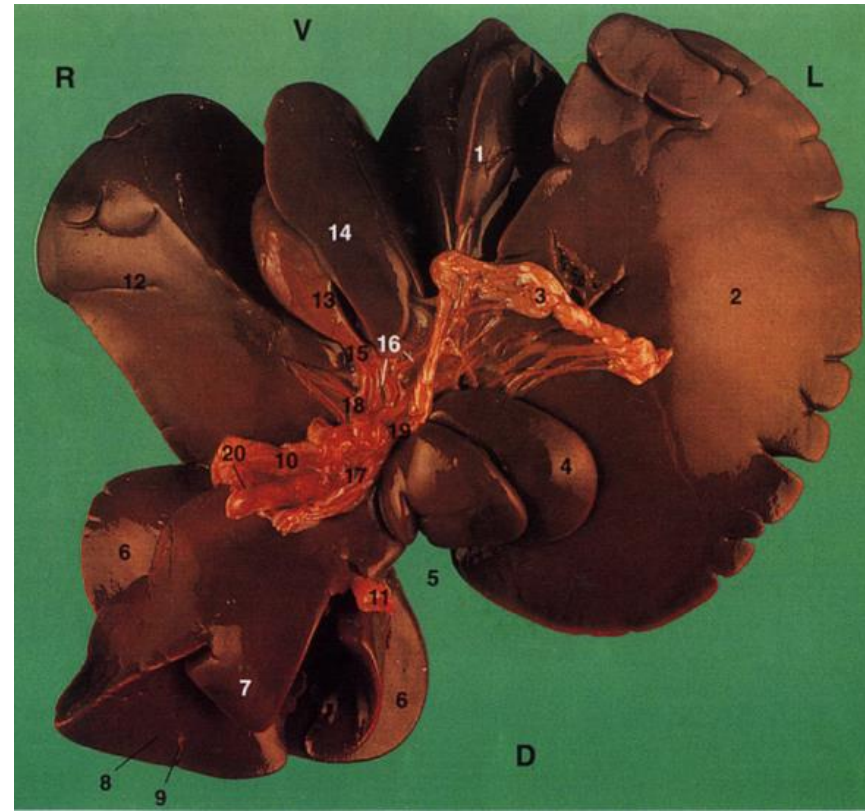
# External features - DOG

- Liver is divided into lobes –
  - Left lateral
  - Left medial
  - Quadrate
  - Right medial
  - Right lateral
  - Caudate (caudate and papillary processes)





## Dog - liver





**gallbladder**



**gallbladder**



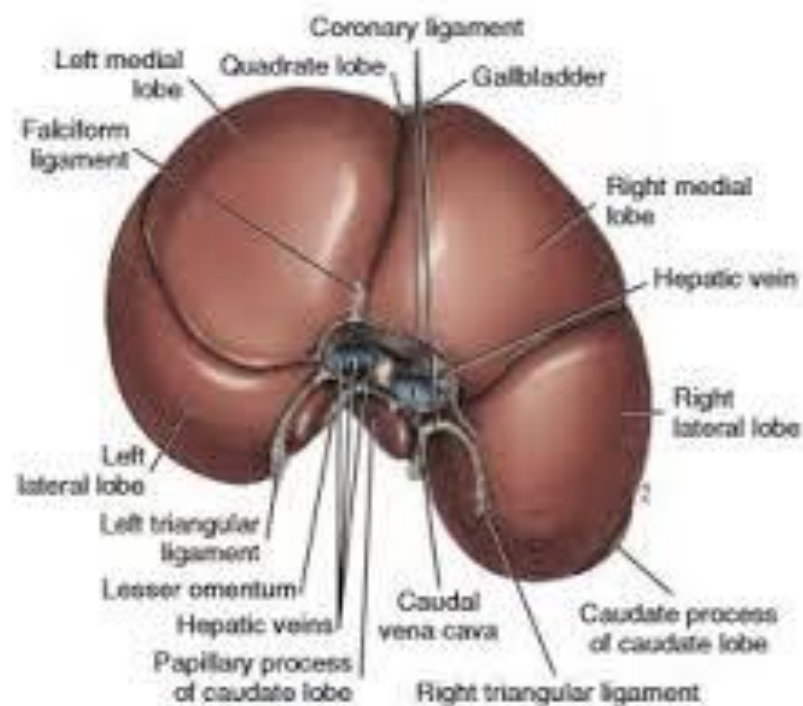
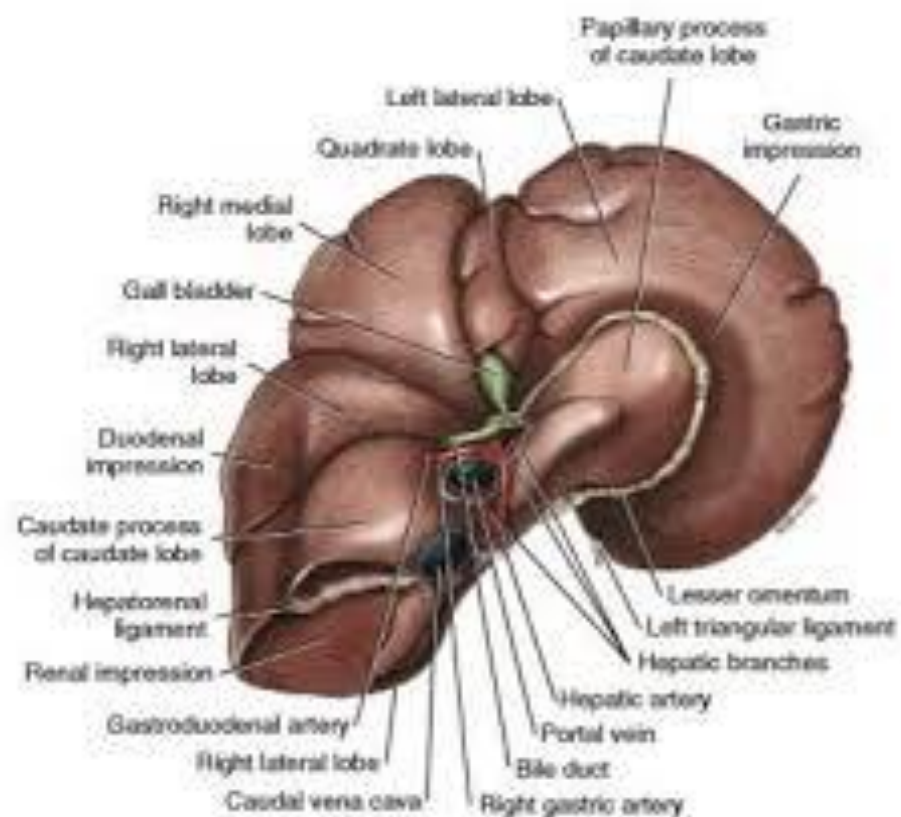
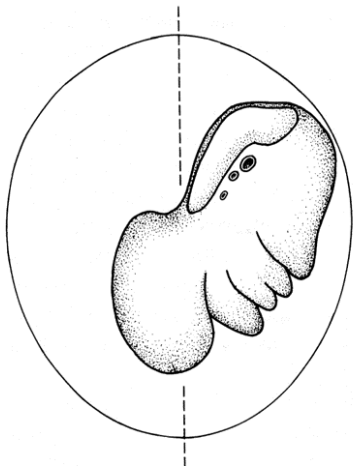


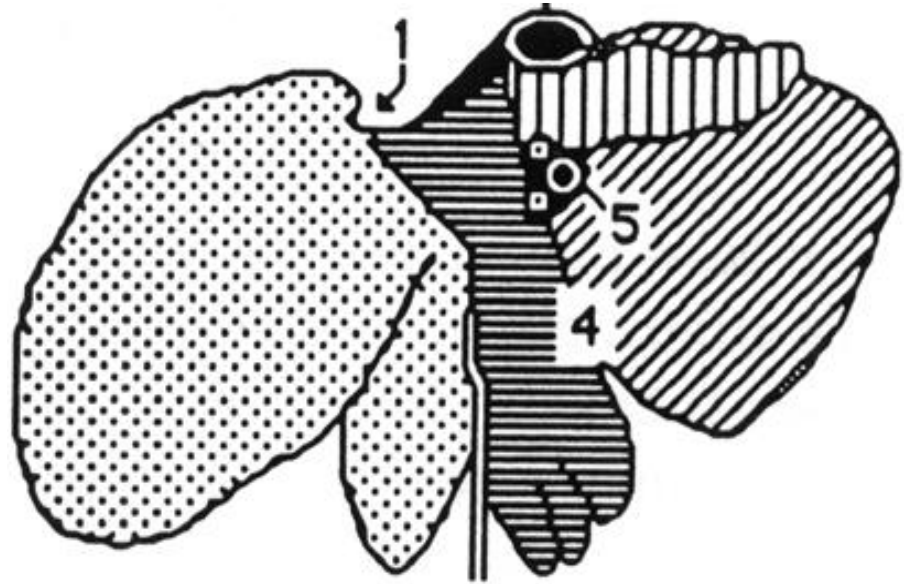
FIGURE 7-40 Liver, diaphragmatic aspect.



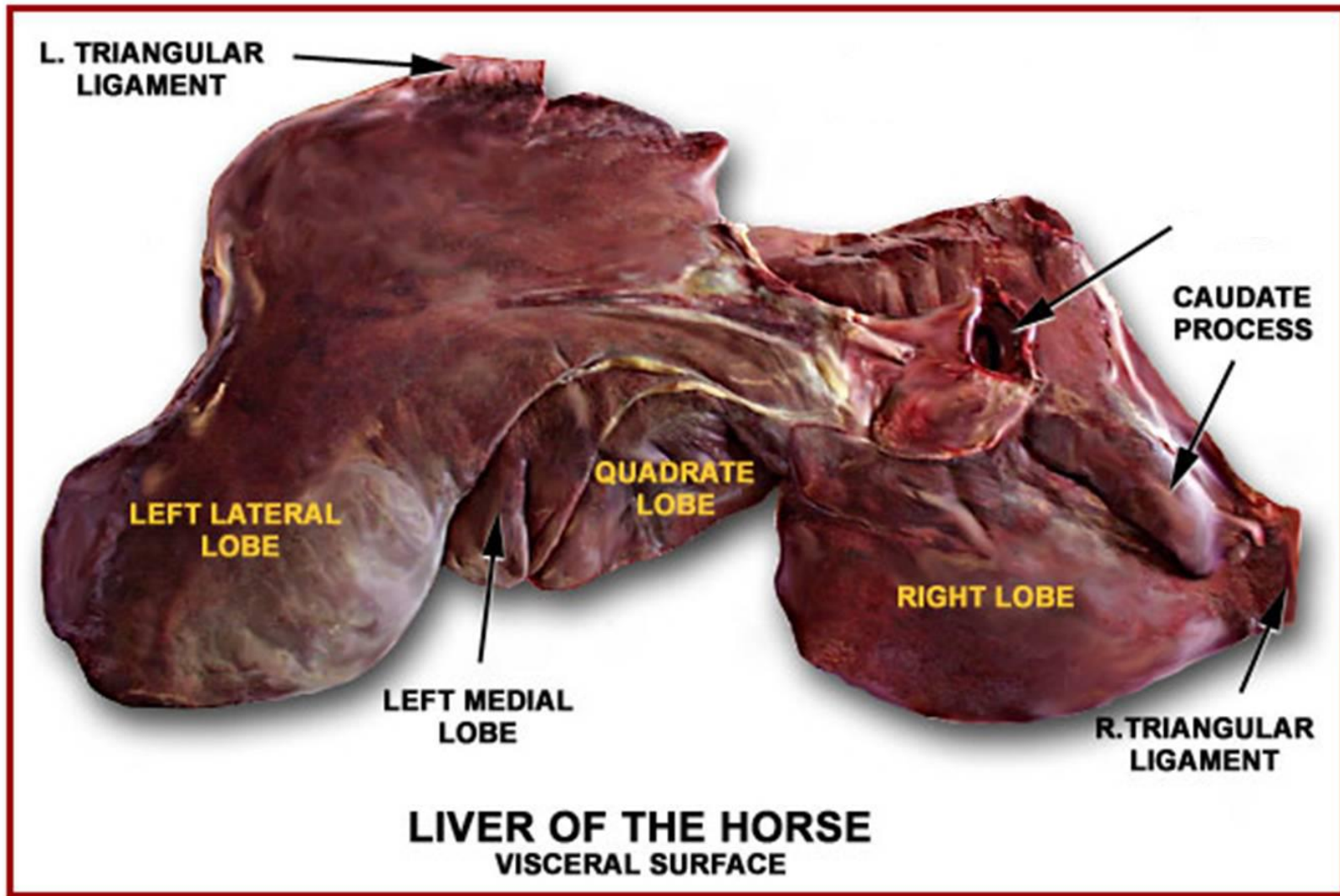


# Equine liver

- Liver - lobes
  - Left
  - Quadrate
  - Right
  - Caudate
- No gall bladder



# Equine liver – visceral surface





# Equine liver parietal surface

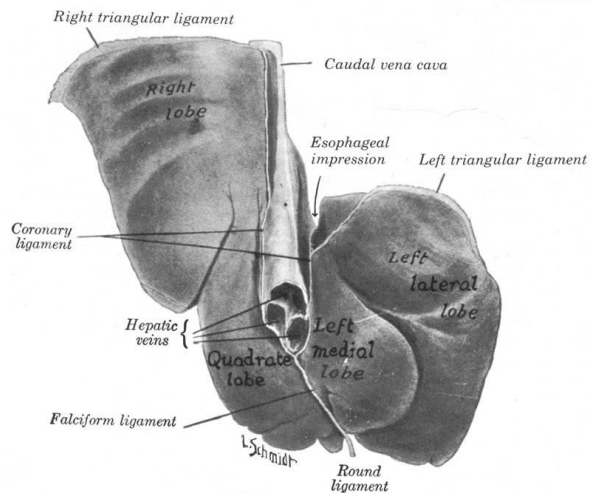
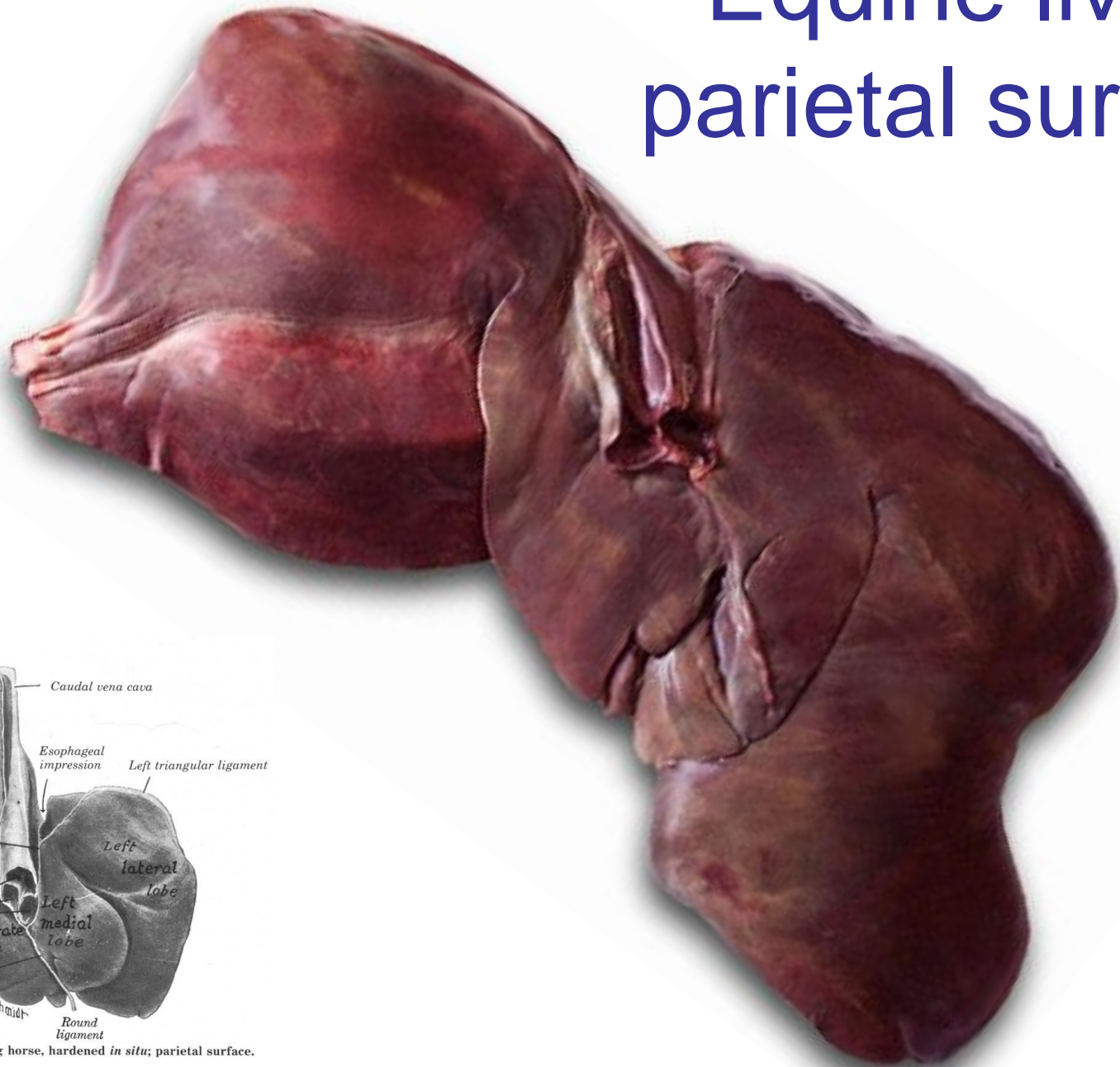


FIGURE 18-52. Liver of young horse, hardened *in situ*; parietal surface.

# Bovine liver

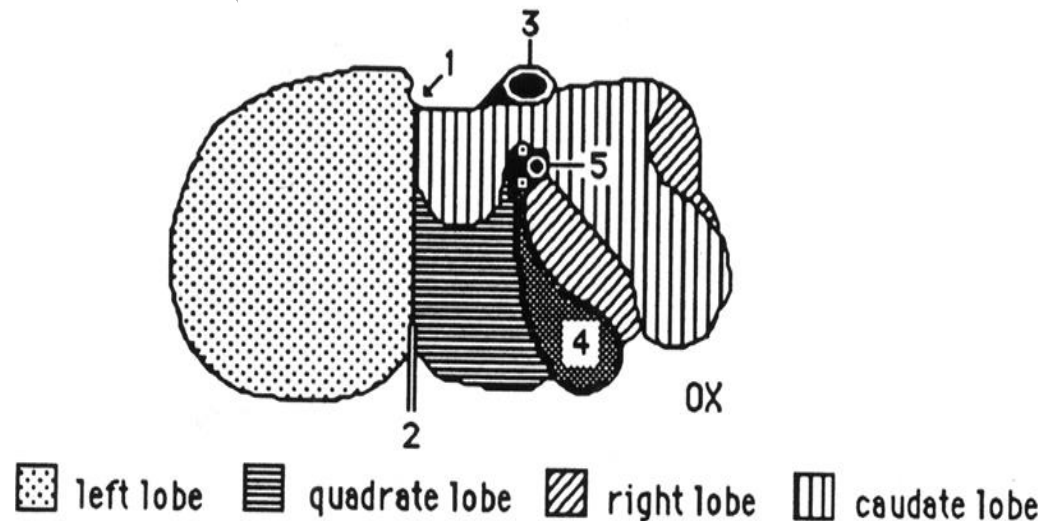
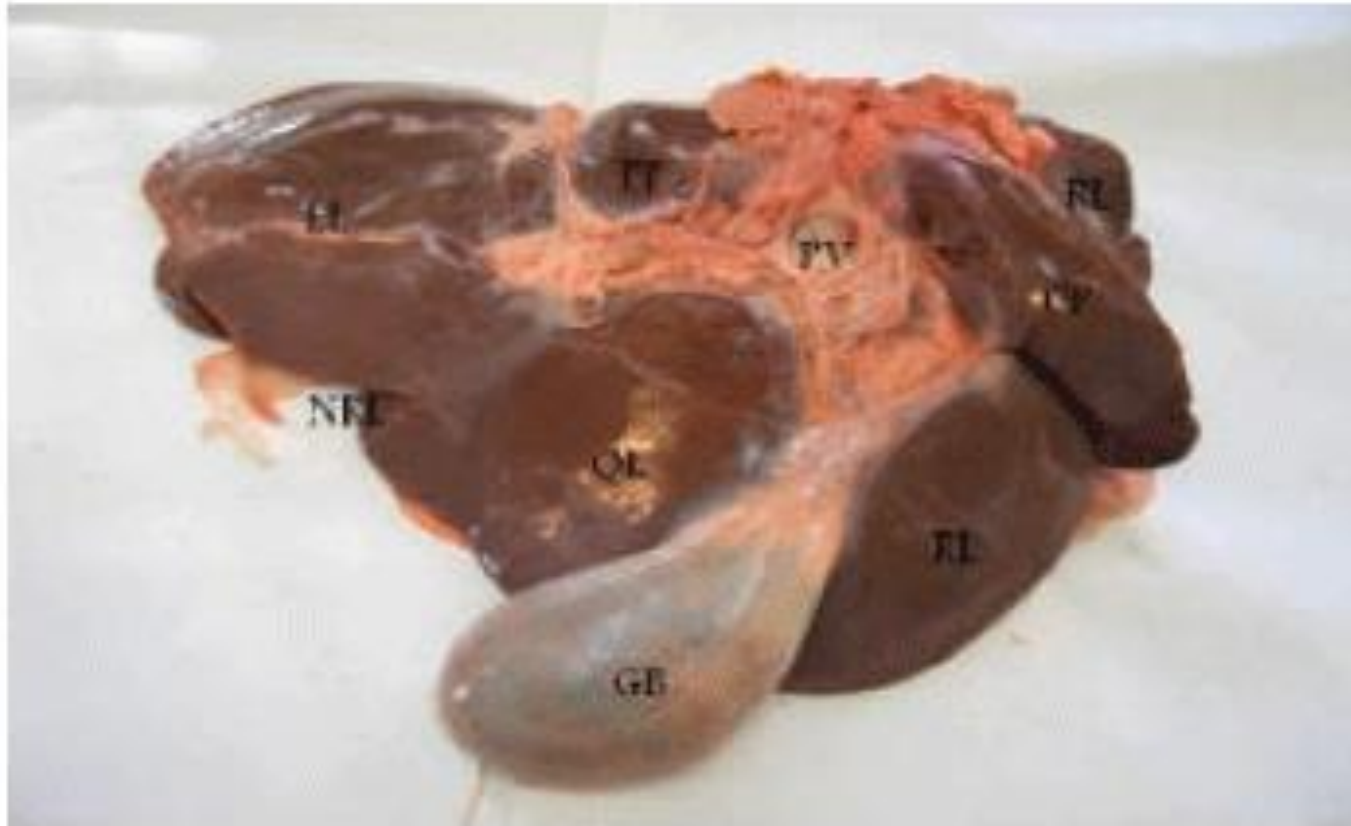


FIGURE 4-5. Livers of pig, horse, and ox, visceral surfaces.

1. Esophageal notch
2. Round ligament of liver
3. Caudal vena cava
4. Gallbladder, or point where gallbladder would have been in horse
5. Hepatic porta

- Gall bladder
  - Piriform shape
  - Projects beyond lateral margin of the right lobe

# Bovine liver – visceral surface



Left Lobe (LL), papillary process of caudate lobe (PP),  
Quadrate Lobe (QL), Portal Vein (PV), Gall Bladder (GB),  
Right Lobe (RL), caudate process of Caudate Lobe (CP),  
Notch of Round Ligament (NRL)

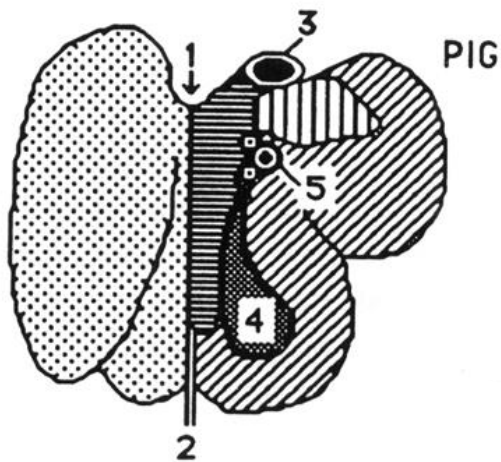
# Bovine liver



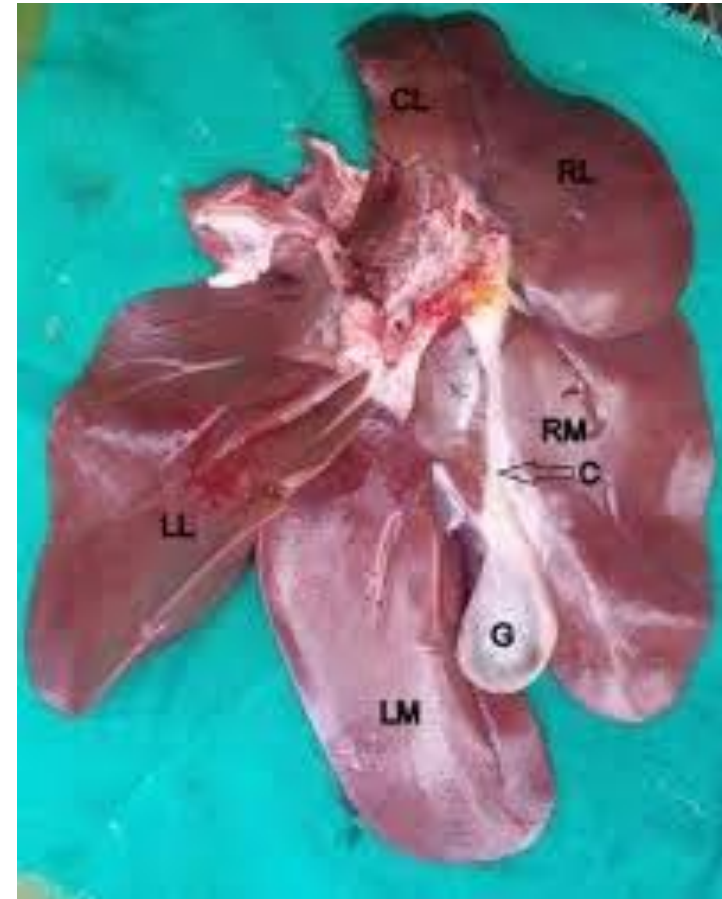
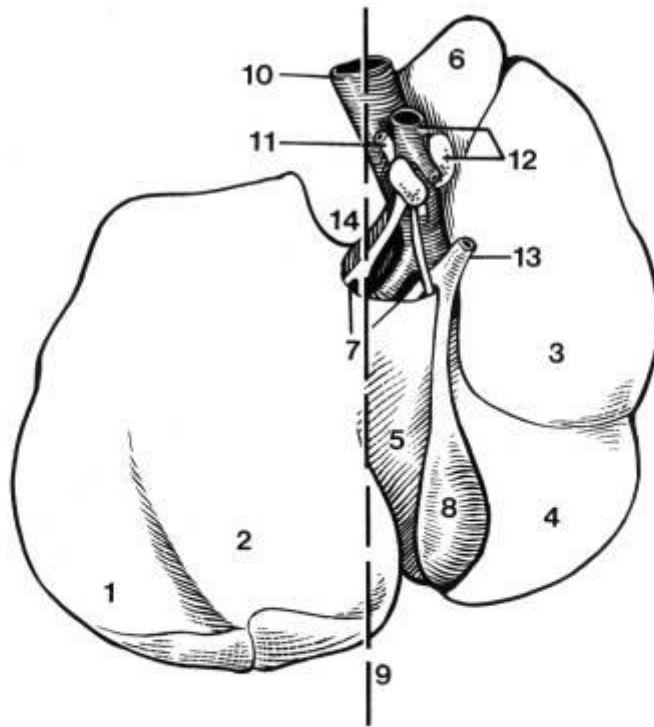


# Comparative aspects - Pig

- 4 major lobes + short quadrate + caudate
  - No papillary process
- High content of interlobular c.t. - speckled appearance to liver surface ('Morocco leather')



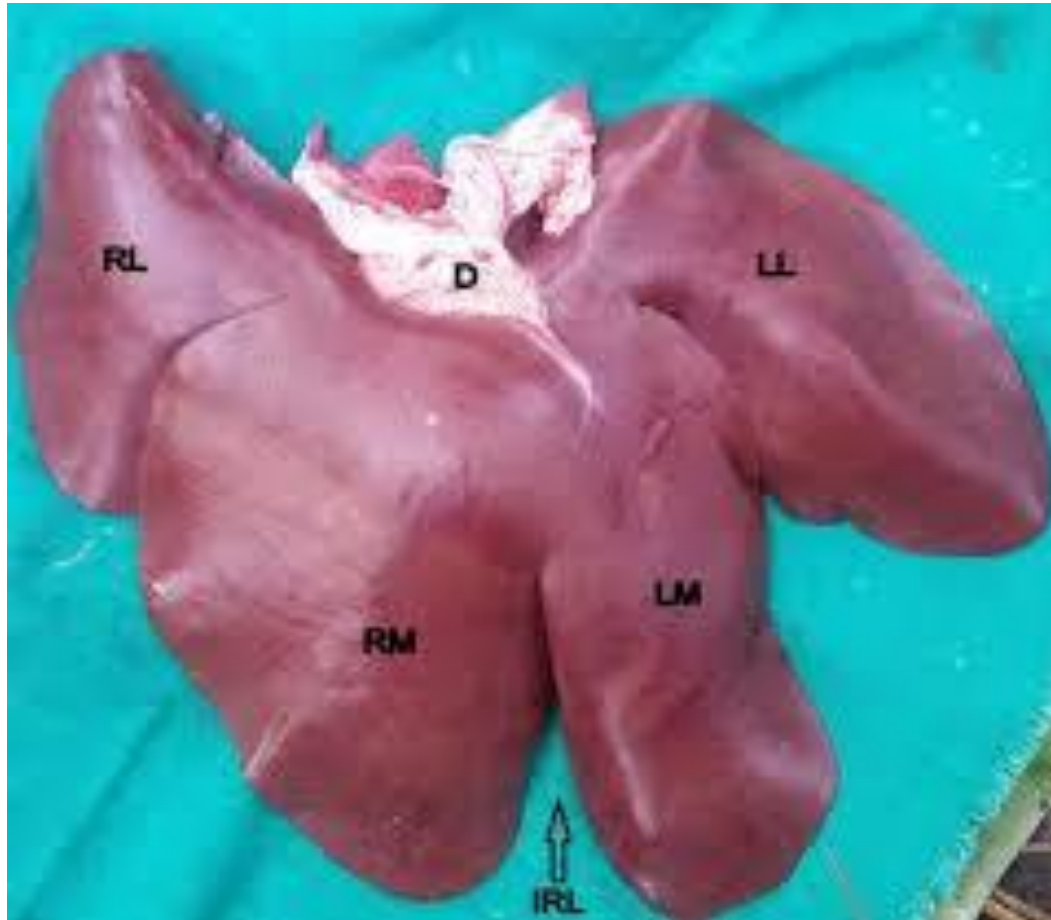
# Pig liver – visceral surface



**Figure 36-8.** Visceral surface of the liver.

1, Left lateral lobe; 2, left medial lobe; 3, right lateral lobe; 4, right medial lobe; 5, quadrate lobe; 6, caudate process; 7, porta; 8, gallbladder; 9, approximate position of median plane; 10, caudal vena cava; 11, hepatic artery; 12, portal vein and hepatic lymph nodes; 13, bile duct; 14, esophageal notch.

# Pig liver – parietal surface



# Avian liver

- Dark brown in adult
- Lobes of liver embrace caudal portion of heart





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