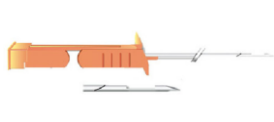
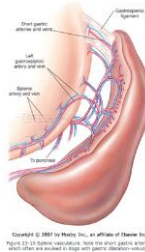
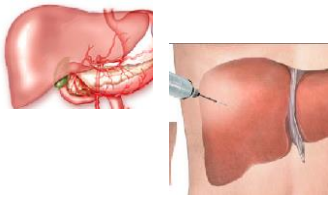


Surgery of the spleen and liver – an introduction 2017 11 30



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Liver – Fossum chapter 21

- For diagnostics – Biopsy of the liver!
- Portosystemic shunts – the principle
- The Gallbladder – disease and treatment

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Liver diagnostics

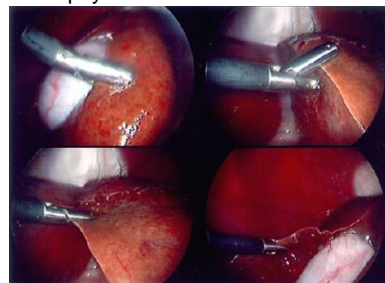
- Always biopsy for improved diagnosis...
 - Nodular hyperplasia...
- Biopsi – best quality/certainty of diagnosis
- Open abdomen, or minimal invasive surgery...
- TruCut – less invasive
- Fine Needle Aspirate – *“the bricks of the building, but no structure”*

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Liver diagnostics

- Biopsy

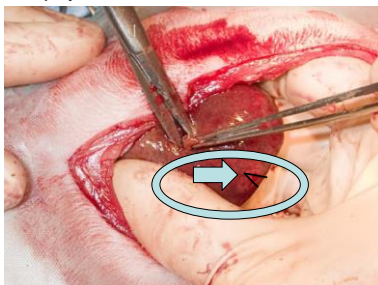


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Liver diagnostics

- Biopsy easy to cut at edge



Hemorrhage?

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Alternatively: crush the edges with forceps



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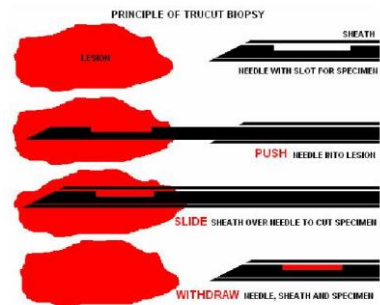
TruCut Guided with ultrasound

Fig 21-2 Tissue core biopsy

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PRINCIPLE OF TRUCUT BIOPSY (FREE NEEDLE TECHNIQUE)

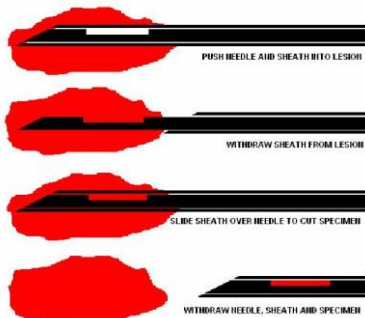


TruCut - free needle

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SHEATHED NEEDLE TECHNIQUE OF TRUCUT BIOPSY



TruCut – sheathed needle

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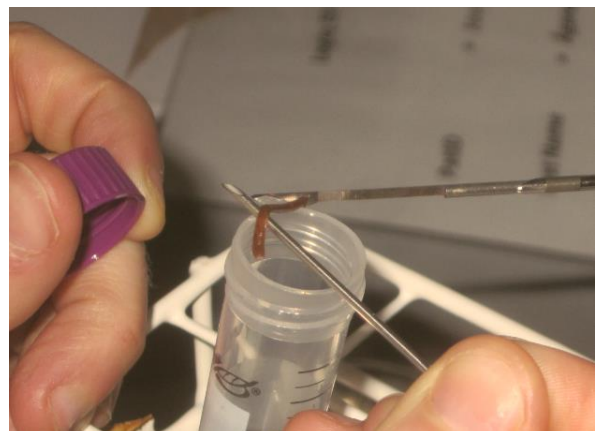
TruCut



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Liver surgery – open abdomen

- If difficult to access the liver: make sure you open more cranially

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Chapter 21 cont Portosystemic shunts

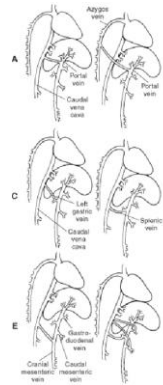


Figure 21-6
Copyright © 2007 by Mosby, Inc., an affiliate of Elsevier Inc.
Portosystemic shunts described in dogs and cats. A, Portal vein to caudal vena cava. B, Portal vein to azygos vein. C, Left gastric vein to caudal vena cava. D, Splenic vein to caudal vena cava. E, Left gastric, cranial mesenteric, caudal mesenteric, or gastroduodenal vein to caudal vena cava. F, Combinations of the above.

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Portosystemic shunts

- The goal of surgery is to identify and occlude or attenuate the abnormal vessel.
- Ameroid constrictors (Fig. 21-12) or cellophane bands are now commonly used in animals with extrahepatic shunts to slowly occlude the shunt vessel.

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Portosystemic shunts. Ameroid constrictor



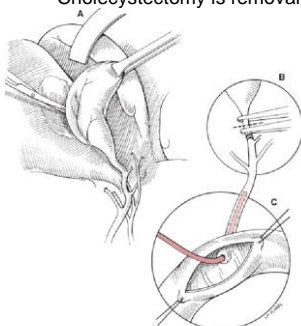
Copyright © 2007 by Mosby, Inc., an affiliate of Elsevier Inc.
Figure 21-6 An ameroid constrictor.

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Chapter 22: Extrahepatic biliary system

- Cholecystectomy is removal of the gallbladder. Fig 22-4.



Blunt dissection

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Ch 22: Extrahepatic biliary system

- A **gallbladder mucocele** is a mucus-filled dilation or distention of the gallbladder that is associated with dysfunction of mucus-secreting cells within the gallbladder mucosa.
- The gallbladder contents are so thick that they cannot be excreted out the bile duct.
- Treatment: Cholecystectomy
- Page 628

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Ch 22: Extrahepatic biliary system

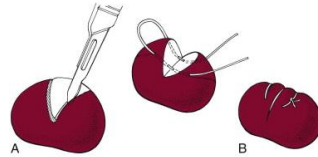
- Calculi found in the gallbladder are **choleliths**; (those found in the common bile duct are **choledocholiths**). Calculi are often called **gallstones**. P 626
- Treatment: Cholecystectomy
- Humans?

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Ch 24: Surgery of the spleen (Surgery of the Hemolymphatic System)

- P 685-704
- Biopsy lymph node – Fig 24-4
– Not sutured



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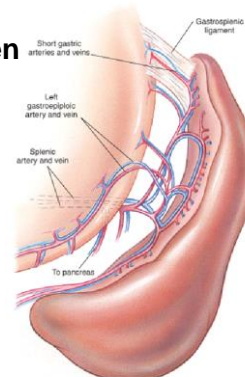
Ch 24: Surgery of the spleen (Surgery of the Hemolymphatic System)

- **Splenectomy** is surgical removal of the spleen.
– Common!

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Spleen



Know this picture!

Figure 24-10 © 2007 by Mosby, Inc., an affiliate of Elsevier Inc.
... Splenic vasculature. Note the short gastric arteries, which often are avulsed in dogs with gastric dilatation-volvulus.

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Spleen

- Hemangiosarcoma is the most common primary tumor of the spleen in dogs.



Textbook: 2/3 of all tumors are malignant, and 2/3 of those are HSA. 1/3 is benign
Japan: 1/2 / 1/2 malignant/benign.
Of the malignant, 2/3 are HSA



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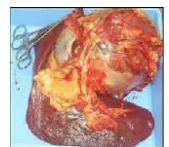


Spleen

- **Hemangiosarcoma (HSA):**
- **Overview**

HSA is a common tumor of the spleen usually seen in older dogs (8-10 years of age). Any large breed dog appears to be at an increased risk especially German Shepherds, Golden Retrievers, Labradors and Poodles.

www.acvs.org/AnimalOwners/HealthConditions/SmallAnimalTopics/SplenicMassesInDogs



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Spleen

- **Splenic Torsion:**
- **Overview**

This occurs when the spleen rotates/twists thus preventing blood drainage and subsequent enlargement of the spleen. It occurs in large and giant breed dogs (eg. Great Danes, German Shepherds) with deep chested conformation. It may occur on its own (rare) or **in combination with GDV (gastric dilatation-volvulus)**. Rolling, retching and exercise may increase the spleen's ability to move along with stretching of the ligaments that normally stabilize the spleen, resulting in twisting of the spleen.



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Spleen

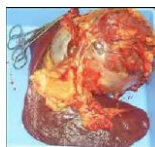
- **Hematoma and Nodular Hyperplasia:**
- These are the most common non-neoplastic lesions found in the spleen and account for 20-41% of all splenic lesions. They are benign nodules/masses of clotted blood. Surgical removal is curative.



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Spleen



- Sarcoma – survival time?
– Ca 3 months

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質問ですか?
Questions?
ありがとうございました!
Thank you!



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