Tikrit University
College of Veterinary Medicine

Surgery of the Spleen

Subject name: Practical Surgery

Subject year: five-stage

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SCAN ME
Lecturers link

Surgery of the Spleen

Splenomegaly: is enlargement of the spleen arising from any cause.

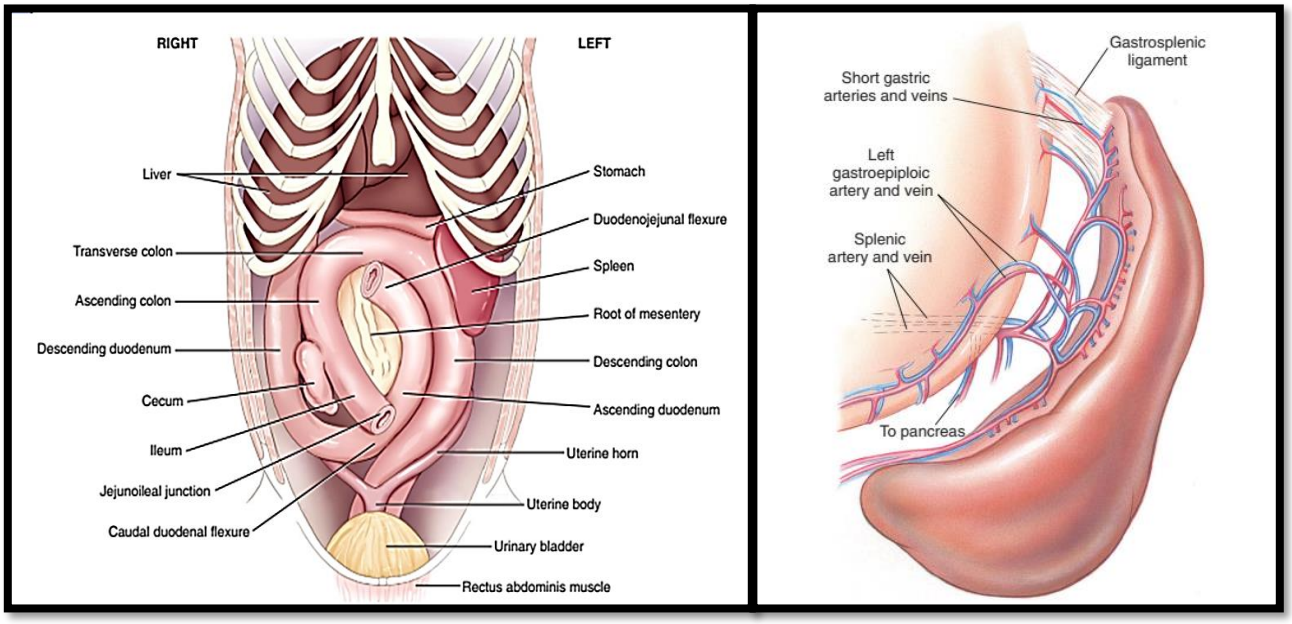
Splenectomy: is surgical removal of the spleen.

Splenosis: is the congenital or traumatic presence of multiple nodules of normal splenic tissue in the abdomen.

Splenorrhaphy: is suturing of a ruptured spleen.

Surgical anatomy

- The spleen is situated in the left cranial abdominal quadrant.
- It usually lies parallel to the greater curvature of the stomach;
- The splenic capsule is composed of elastic and smooth muscle fibers.
- The parenchyma consists of white pulp (i.e., lymphoid tissue) and red pulp (i.e., venous sinuses and cellular tissue filling the intravascular spaces).
- The arterial supply of the spleen usually is the splenic artery, a branch of the celiac artery gives off three to five long primary branches. The first branch usually is to the pancreas and is the main supply of the left limb of that organ. The two remaining branches run toward the proximal half of the spleen, where they send 20 to 30 splenic branches that enter the parenchyma.



Partial Splenectomy

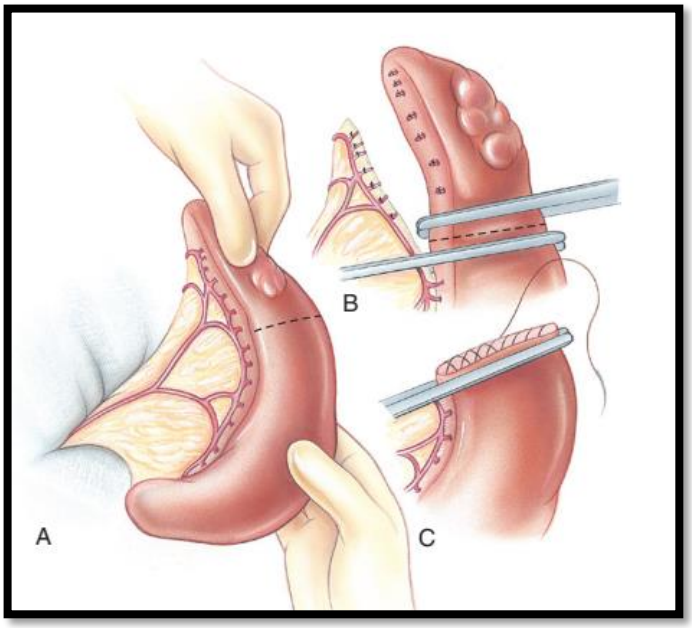
Indications

partial splenectomy is indicated in animals with traumatic or focal lesions such as:

1- Abscess.
2- Segmental Infarction.
3- Localized Splenomegaly.
4- Neoplasia.
5- Nodular Hyperplasia.

Surgical Technique:

- The spleen is approached via a ventral midline abdominal incision that extends from the xiphoid to a point caudal to the umbilicus. The incision may need to be lengthened for large lesions or to allow complete abdominal exploration.
- Define the area of the spleen to be removed, and double ligate and incise the hilar vessels supplying the area. Note the extent of ischemia that develops, and use this as a guideline for the resection.
- Squeeze the splenic tissue at this line between a thumb and forefinger, and milk the splenic pulp toward the ischemic area.
- Place forceps on the flattened portion, and divide the spleen between the forceps .
- Close the cut surface of the spleen adjacent to the forceps in a continuous pattern using



Total Splenectomy

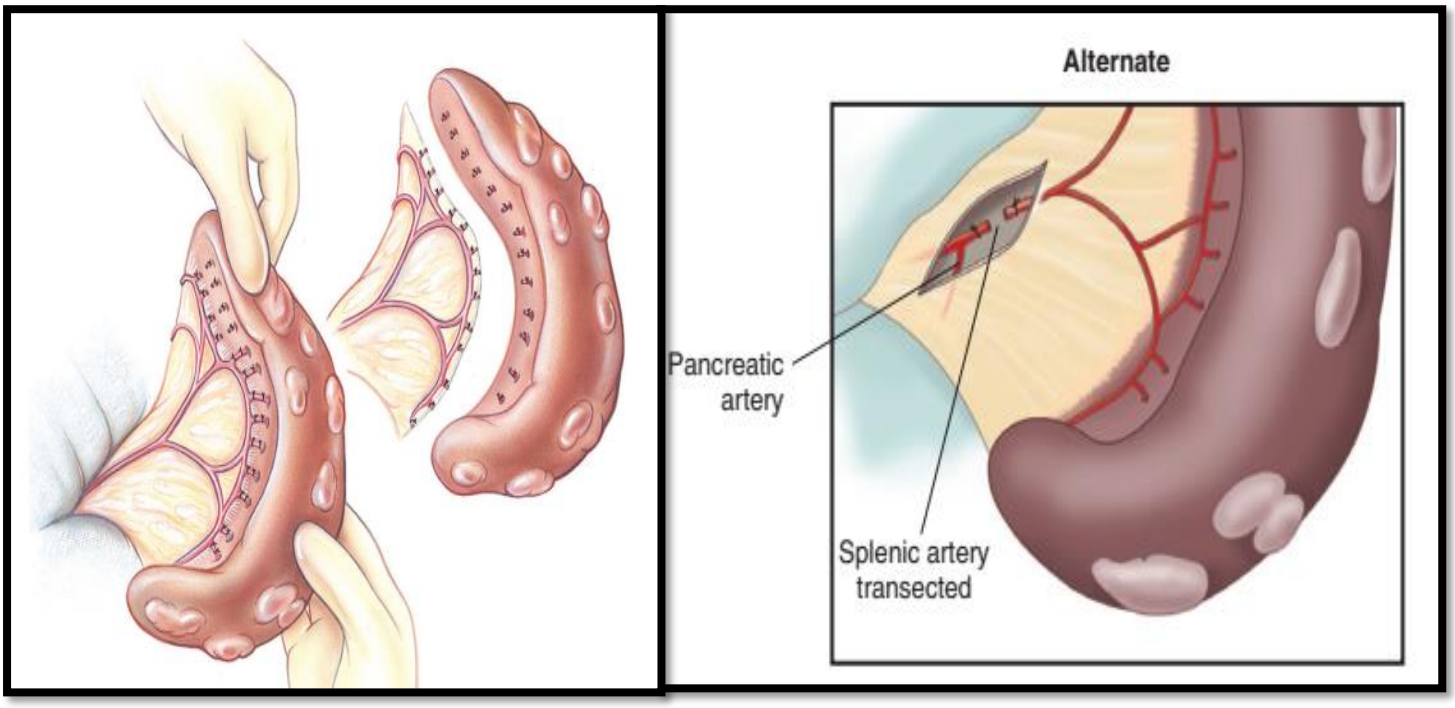
Indications:

1- Splenic neoplasia.
2- Splenic trauma.
3- Splenic hemorrhage .
4- Torsion (stomach or spleen).

Surgical technique

- After exploring the abdomen, exteriorize the spleen and place moistened abdominal sponges or laparotomy pads around the incision under the spleen.
- Double ligate and transect all vessels with absorbable (preferred) or nonabsorbable suture material, to decrease the risk of postoperative hemorrhage.
- After removal of spleen from the surgical site, The pancreas should be examined for damage or ischemia, particularly in the case of splenic torsion.
- Close the laparotomy incision.

NOTE • Gastropexy may be performed after splenectomy to reduce the incidence of GDV.



Postoperative Care

1- Antibiotics with analgesic should be continued for 4 days P.O.
2- Animal should be closely observed for 24 hours for evidence of hemorrhage.
3- Fluid therapy should be continued until the animal is able to maintain its own hydration, and electrolyte and acid-base abnormalities should be corrected.

Complications of splenic surgery

1- Hemorrhage
2- Infection
3- Abscessation
4- Traumatic pancreatitis
5- Gastric fistulation due to impairment of gastric blood flow.