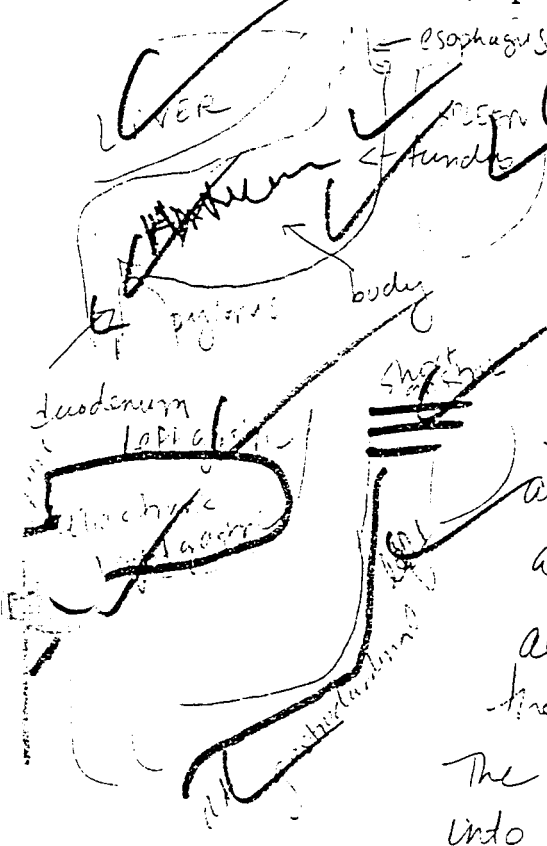


78.5  
76

PART I. Answer in the space provided. (55 points)

1. Discuss the anatomy (relationships, structure, arterial and venous supply, innervation) of the stomach. (10 points)



The stomach is bordered superiorly by the lesser omentum (gastrohepatic ligament) and inferiorly by the greater omentum, on the right by the liver, on the left by the spleen, posteriorly by the pancreas and anteriorly by body wall, <sup>Diaphragm</sup>

It is supplied by the <sup>diaphragm</sup> ~~right and left gastric~~ arteries, short gastric arteries, gastroduodenal artery and right and left colic arteries all originating from the celiac artery except the short gastric originating from the splenic.

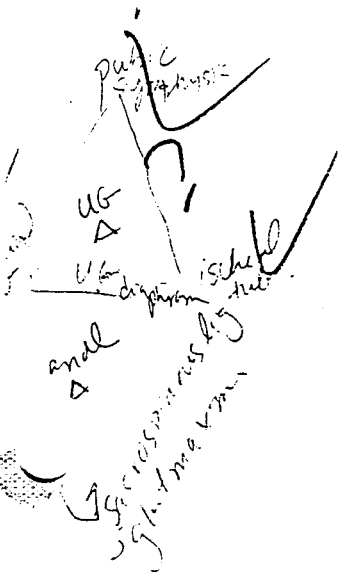
The veins travel alongside the arteries and drain into the portal vein. It is innervated sympathetically by the celiac plexus (from greater splanchnic nerve T5-9) and parasympathetically by the vagus nerve.

Sac S  
Lig S  
Colon

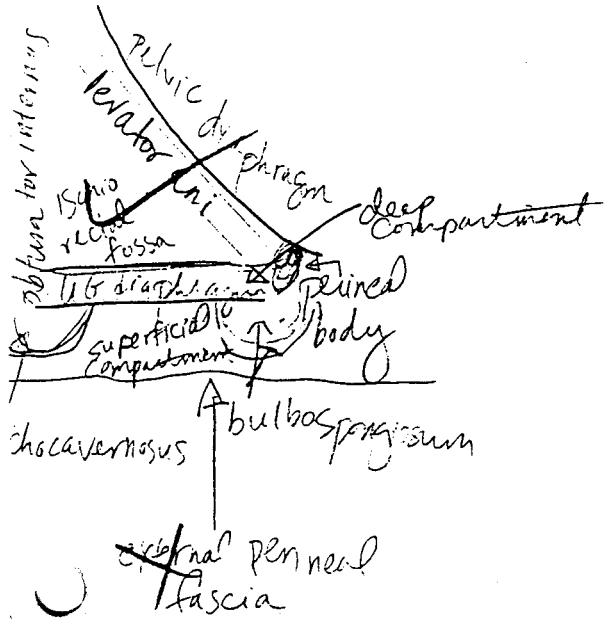
Vagus

2. Discuss the anatomy of the urogenital diaphragm. (10 points) (rel, smc, a-v, n)

The U-G diaphragm is composed of the Sphincter urethra muscle and the deep transverse perineal muscles and inferior ~~superior~~ fascia of U-G diaphragm. Its borders are shown in the diagrams. It is made of a superficial and deep compartment. It also contains the greater vestibular gland.



It is supplied by the pudendal artery and drained by the pudendal vein. It is innervated by the pudendal nerve and its branches. The U-G diaphragm is pierced by the urethra and in females, the vagina. The U-G diaphragm forms the border between the urogenital region and anal region.



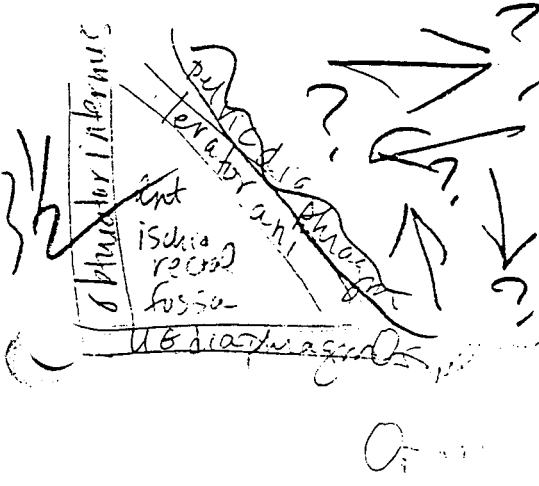
Supporte Pelvis  
 Per. Nervu  
 Sup. Xverse, Per. M  
 crura  
 Bulboourethra  
 ATRF

3. What is the primary lymph drainage from the following areas: (5 points)

- a. anus ~~deep inguinal nodes~~
- b. ovary ~~lumbar nodes & renal nodes~~
- c. fundus of uterus ~~superficial inguinal nodes~~  $\frac{1}{2}$
- d. scrotum ~~superficial inguinal nodes~~ superficial inguinal nodes
- e. testes ~~superficial inguinal nodes~~ upper lumbar nodes

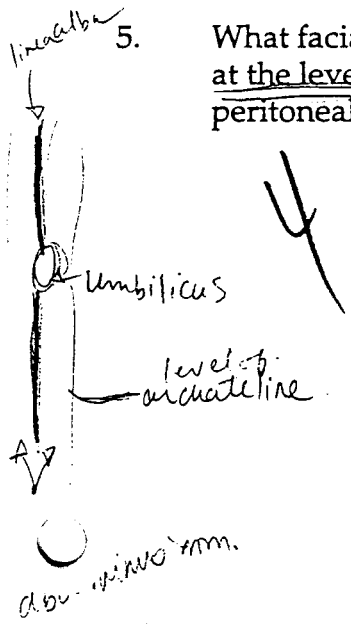
3/2

4. Define the anterior recess of the ischio-rectal fossa. (5 points)

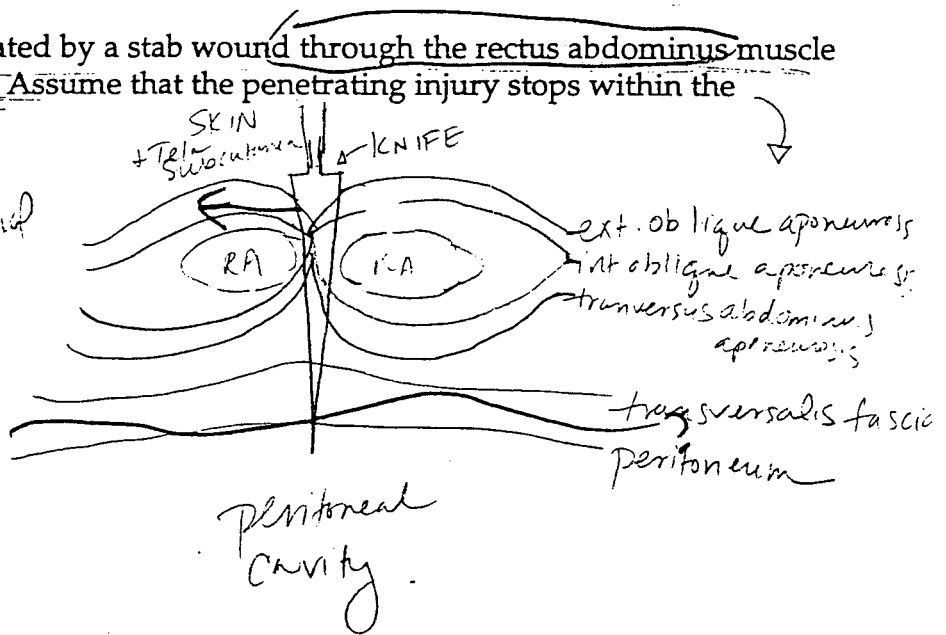


The borders are short. No diagram.  
 It communicates with the posterior ischio-rectal fossa - so infection in one compartment can spread to another.  
 Ant ?  
 Post ?  
 Super. ?  
 Inf ?

5. What facial layers are penetrated by a stab wound through the rectus abdominus muscle at the level of the umbilicus? Assume that the penetrating injury stops within the peritoneal cavity. (5 points)



Superficial  
 ↓  
 deep -



5. Discuss the anatomy (relationships, structure, innervation, arterial and venous supply) of the prostate. (10 points)

The prostatic part of the urethra goes through the prostate gland. The prostate is located inferior to the bladder. It is involved in the secretion of a component of the semen. It is the most common site for cancer in males. It is supplied by the inferior vesical arteries, and the internal pudendal arteries. It is drained by the prostatic venous plexus which goes to the spermatic cord and drains into the inferior vena cava. It is innervated by the pudendal nerves (S2, 3, 4) - sympathetic and pelvic splanchnic nerves. <sup>Inf hypogastric plexus</sup> Parasympathetic. It is where the ductus deferens meets the urethra to form the ejaculatory duct.

Post wall urethra?  
LIGS  
Rectum  
Fasc -

**PART II. Answer in the space provided. (45 points)**

1. Indicate your understanding of the following (8 points)

a. Inferior hypogastric plexus

Joining of hypogastric nerves + pelvic splanchnics  
Located against posterolateral pelvic wall + lateral to rectum  
Branches: middle rectal plexus  
uterovaginal plexus  
vesical plexus  
prostatic plexus

b. Lateral cervical (Mackenrodt's cardinal) ligament

Condensation of extraperitoneal connective tissue  
Connects uterus to pelvic wall  
Major support of uterus

c. Atonic bladder

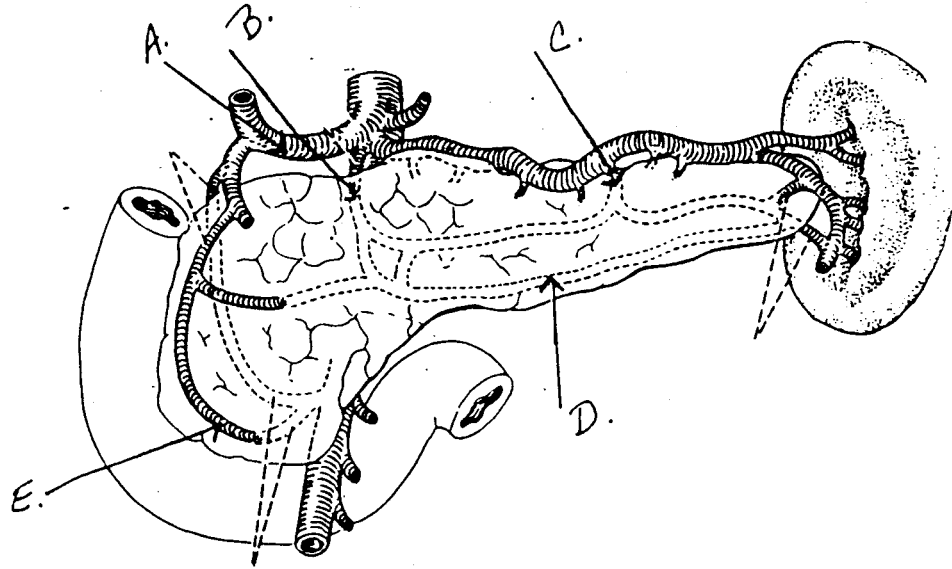
Transection of dorsal roots  
S2-4  
Insufficient bladder contraction (cable tissue muscle)

d. Ligament of Treitz

Stabilizes 4<sup>th</sup> part of duodenum to posterior abdominal wall  
Connective tissue and some smooth muscle  
Arises from celiac trunk and right crus of diaphragm

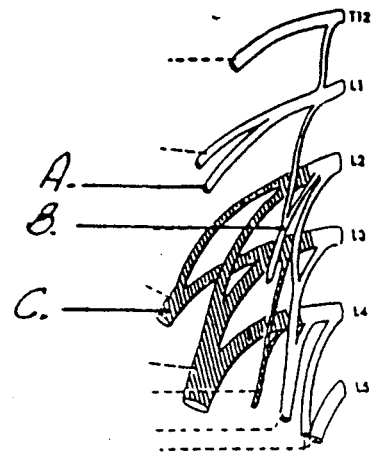
2. Name the arteries indicated. (5 points)

- a. Common hepatic
- b. Dorsal pancreatic
- c. Great pancreatic  
(transverse)
- d. Inferior pancreatic
- e. Anterior inferior pancreaticoduodenal



3. Identify these nerves. (3 points) (Fig. 25-15)

- a. Ilioinguinal
- b. Genitofemoral
- c. Lat. femoral cutaneous



**PART III.** Circle the correct answer (s). *All, none, or some may apply.* (29 points)

1. In regard to the fascia in the pelvis and perineum.
  - a. The visceral pelvic fascia of the pelvis is an extension of the transversalis fascia of the abdomen
  - b. The periprostatic fascia is related to the extraperitoneal connective tissue
  - c. The superior fascia of the pelvic diaphragm is a condensation of the extraperitoneal connective tissue
  - d. The obturator internus fascia has a thickening termed the arcuate line
  - e. Scarpa's fascia extends onto the penis as dartos tunic
  
2. With respect to the small intestine:
  - a. Meckel's diverticulum is an occasional feature of the ileum
  - b. Taenia coli are arranged in 3 distinct longitudinal bands on the surface of the ileum
  - c. Intestinal arteries supply the jejunum and ileum and are located in the extraperitoneal connective tissue
  - d. The mesentery of the small intestine is derived embryologically from the dorsal mesentery
  - e. The innervation of the jejunum occurs by way of post-ganglionic neurons from the vagus and lumbar splanchnic nerves
  
3. Characteristics of indirect inguinal hernias include:
  - a. Abdominal contents enter the superficial ring but not the deep inguinal ring
  - b. Intestinal contents will lie directly between the tunica vaginalis and the internal spermatic fascia
  - c. Originate lateral to the inferior epigastric artery
  - d. Occur in the medial inguinal fossa
  - e. Involve the processus vaginalis
  
4. With respect to the duodenum:
  - a. Plicae circulares are found throughout the duodenum
  - b. The first part of the duodenum is in direct continuity with the pylorus and is peritonealized
  - c. The superior and inferior mesenteric arteries provide the major blood supply to the duodenum
  - d. The greater duodenal papilla lies inferior to the lesser duodenal papilla
  - e. The tail of the pancreas is associated with the second part of the duodenum

5. Pertaining to the liver:
- According to the internal morphology of the liver, the entire quadrate and caudate lobes belong to the left lobe
  - The hepatic veins drain into the portal vein
  - The hepatic veins are located in the hepatoduodenal ligament
  - The phrenocolic ligament helps suspend the liver
  - The common bile duct lies ventral (anterior) to the portal vein in the hepatoduodenal ligament
6. In regard to the pectinate line:
- Carcinoma above this line would involve columnar or cuboidal epithelia
  - Dilated and redundant veins below this line are referred to as external hemorrhoids
  - Is located just above the anal columns
  - The region above this line is supplied with afferent innervation by somatic nerve fibers of the pudendal nerve
  - The region below this line is supplied by the lumbar splanchnics
7. With respect to the urethra:
- It is only located in the superficial space/pouch
  - The fossa navicularis is an enlargement of the prostatic urethra
  - The ducts of the bulbourethral glands enter the spongy urethra
  - The prostatic urethra is the narrowest and least dilatable part of the urethra
  - The urethral crest is a narrow, longitudinal ridge in the posterior wall of the prostatic urethra
8. In regard to the diaphragm:
- The lumbocostal trigone is an area of weakness related to the lateral lumbocostal arch
  - The azygous vein travels through the foramen for the inferior vena cava
  - The sympathetic trunks descend posterior (deep) to the medial arcuate ligament (lumbocostal arch)
  - The thoracic duct passes through the diaphragm at the level of T12
  - The peripheral part of the diaphragm is supplied by sensory afferents from the phrenic nerves



9. With respect to the kidney:
- a. The left renal vein crosses anterior to the aorta
  - b. The renal artery is located posterior to the renal vein
  - c. Has sympathetic innervation from T12
  - d. Has renal fascia that is formed as from the transversalis fascia
  - e. The psoas muscle forms the medial boundary of the kidneys
10. Which of the following statements regarding the male pelvis is correct?
- a. The pelvis inlet is usually "transversely oval" in shape
  - b. The false pelvis is shallower than in the female
  - c. The subpubic angle/pubis arch is narrower and more V-shaped than in the female
  - d. The posterior superior iliac spine lies in a vertical plane with the pubic symphysis when standing erect
  - e. The lesser pelvis is the true pelvis and contains the pelvic viscera
11. With respect to the ovary, vagina, and uterus:
- a. The uterus is normally anteflexed
  - b. The surface of the ovary is devoid of peritoneum
  - c. A portion of the broad ligament is the mesometrium
  - d. The uterine artery lies on the superior surface of the lateral (cardinal) ligaments
12. The structures normally passing through the inguinal canal in the female include:
- a. Round ligament
  - b. Ilioinguinal nerve
  - c. Pampiniform plexus of veins
  - d. Iliohypogastric nerve