







# Introduction to alimentary system pathology

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#### Second major earthquake rattles Southern California in two days

Updated 6:20 AM; Posted Jul 5, 10:56 PM



Breaking news from The Oregonian/OregonLive



VIDEO

LIVE

SHOWS





#### Southern California reels from magnitude 7.1 quake

By JOHN ANTCZAK, ASSOCIATED PRESS LOS ANGELES — Jul 6, 2019, 4:05 AM ET











### **CAHFS** Mission

**Disease Control** 



Health Management



Food Safety







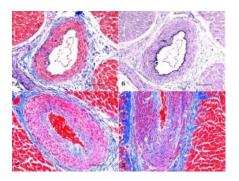


VETERINARY MEDICINE
California Animal Health and
Food Safety Laboratory System





New Knowledge







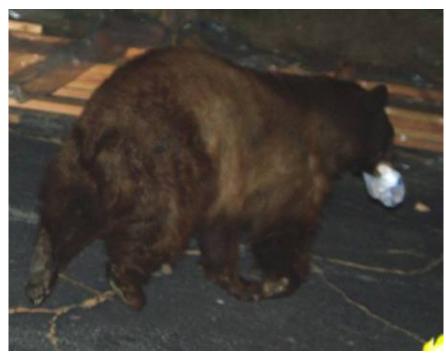








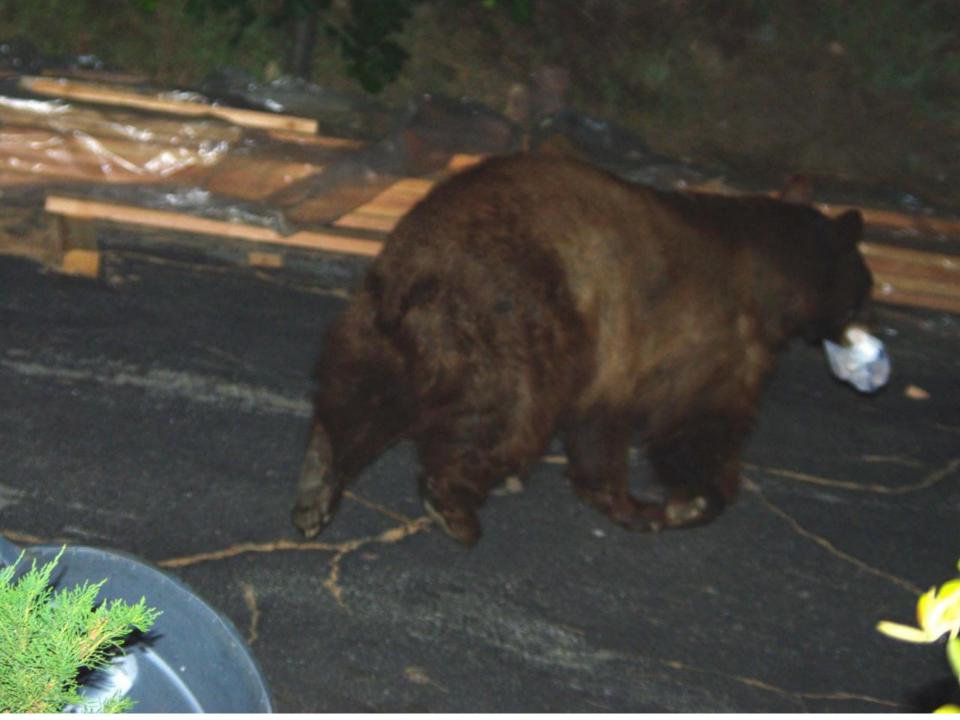
















## Pets – rare occasions



A-Normal anatomy and physiology

B-Main disease processes

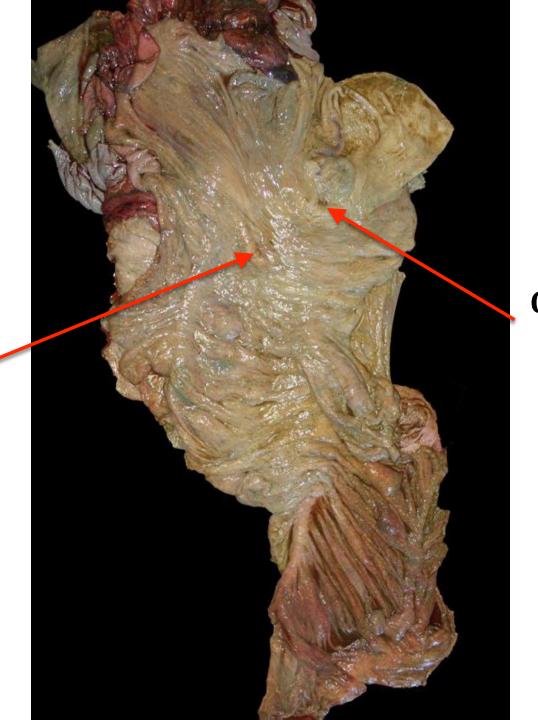
C-Postmortem/incidental findings

# A-Normal anatomy and physiology

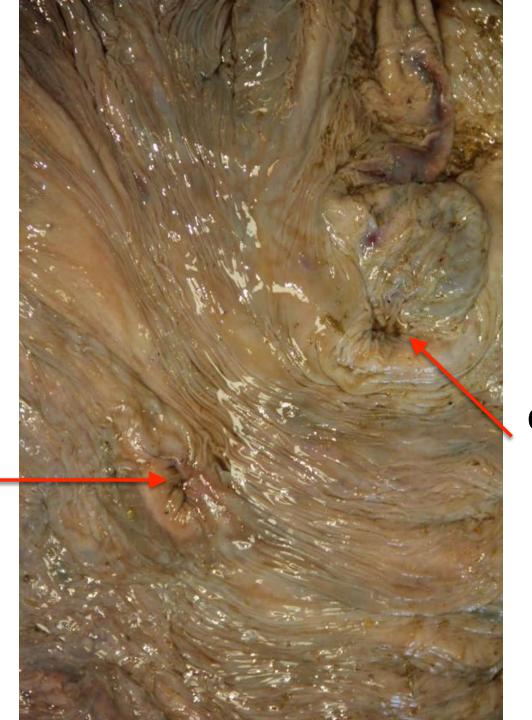
B-Main disease processes

C-Postmortem/incidental findings



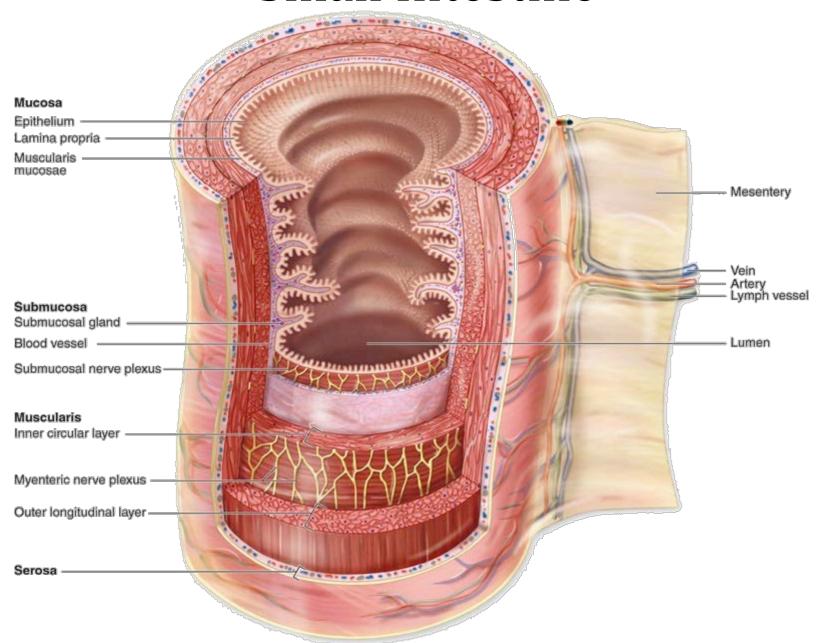


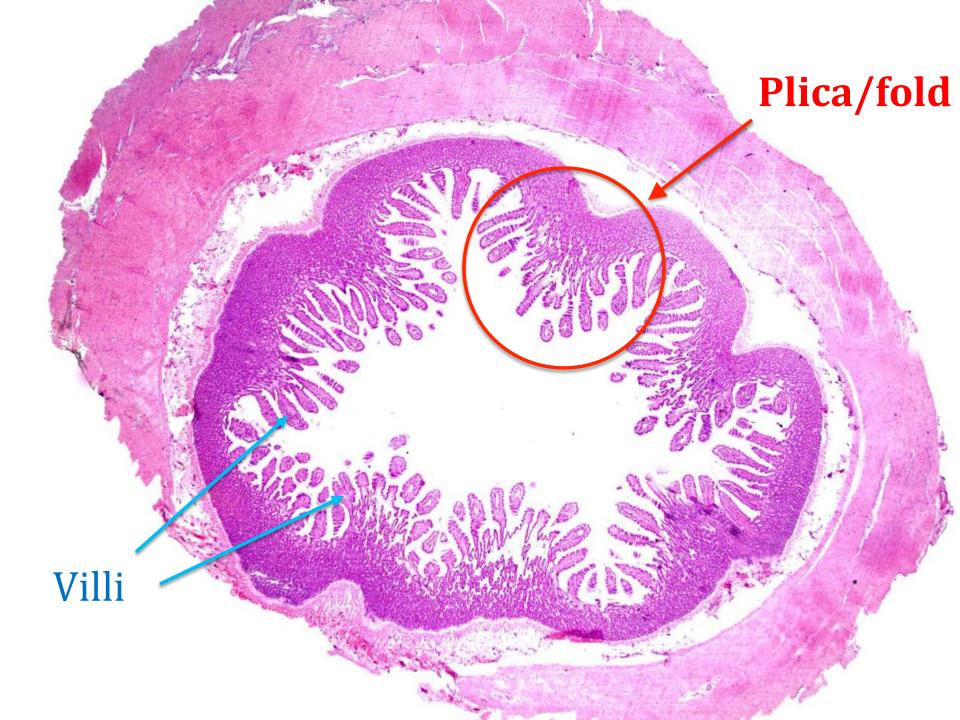
Ceco-colonic junction

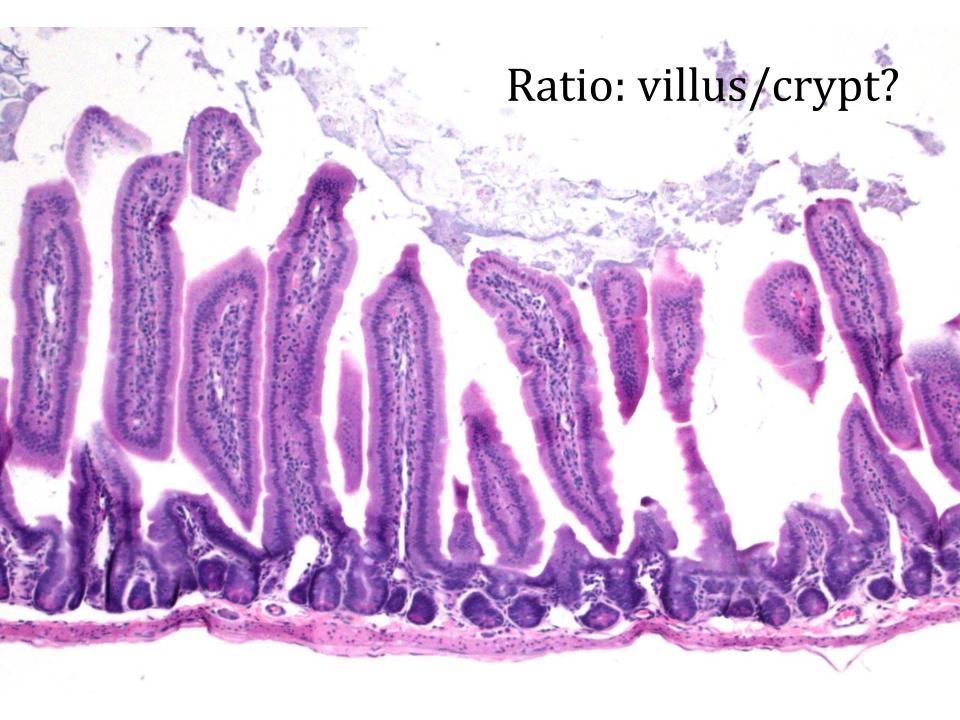


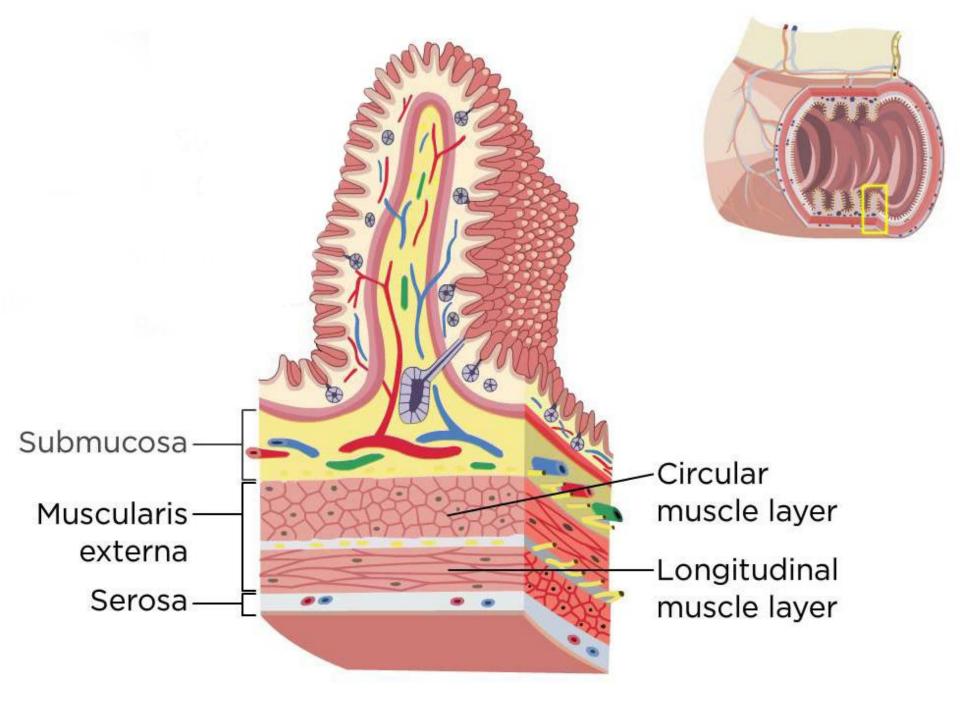
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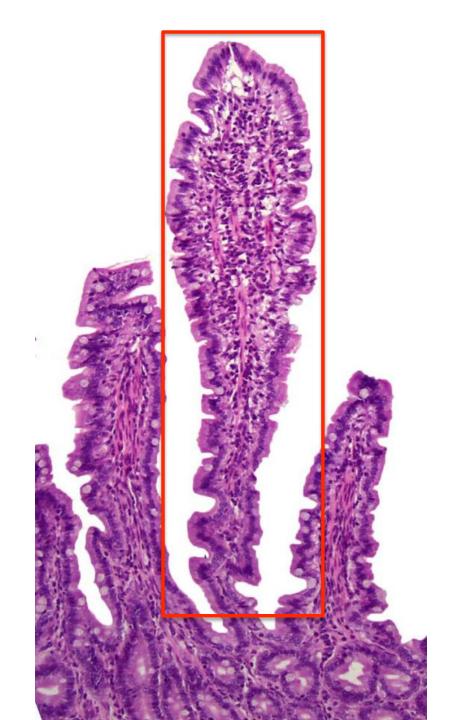
### Small Intestine



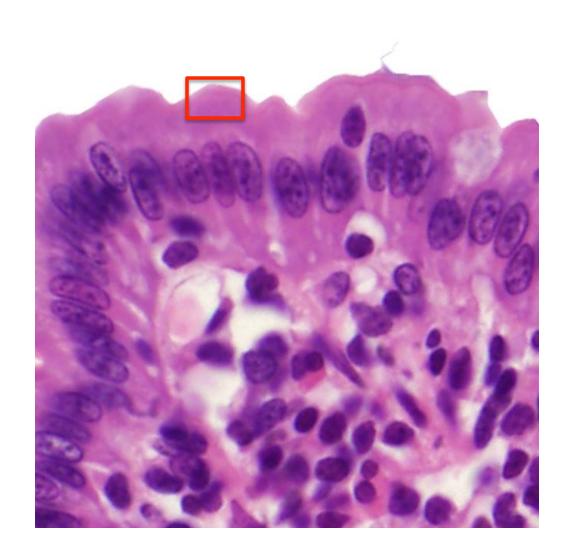


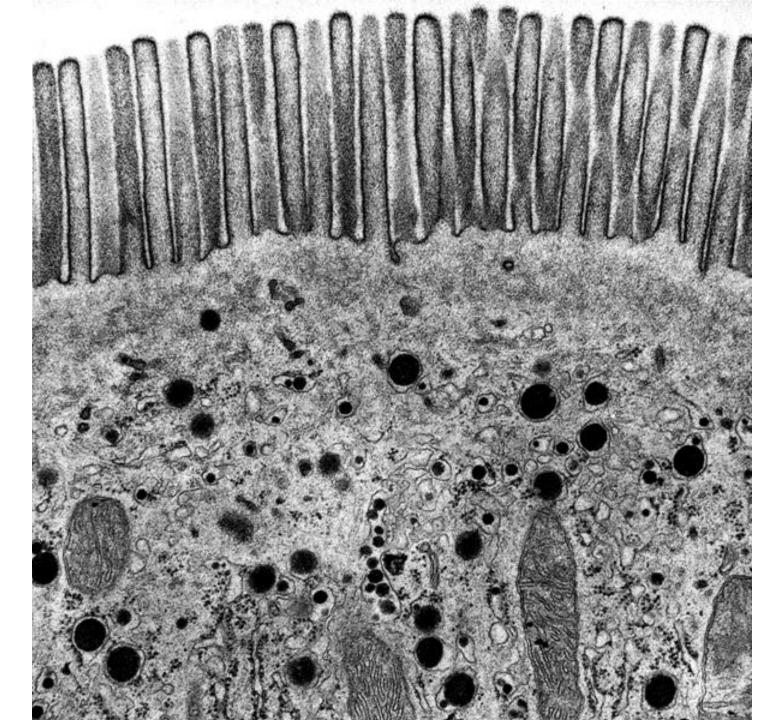


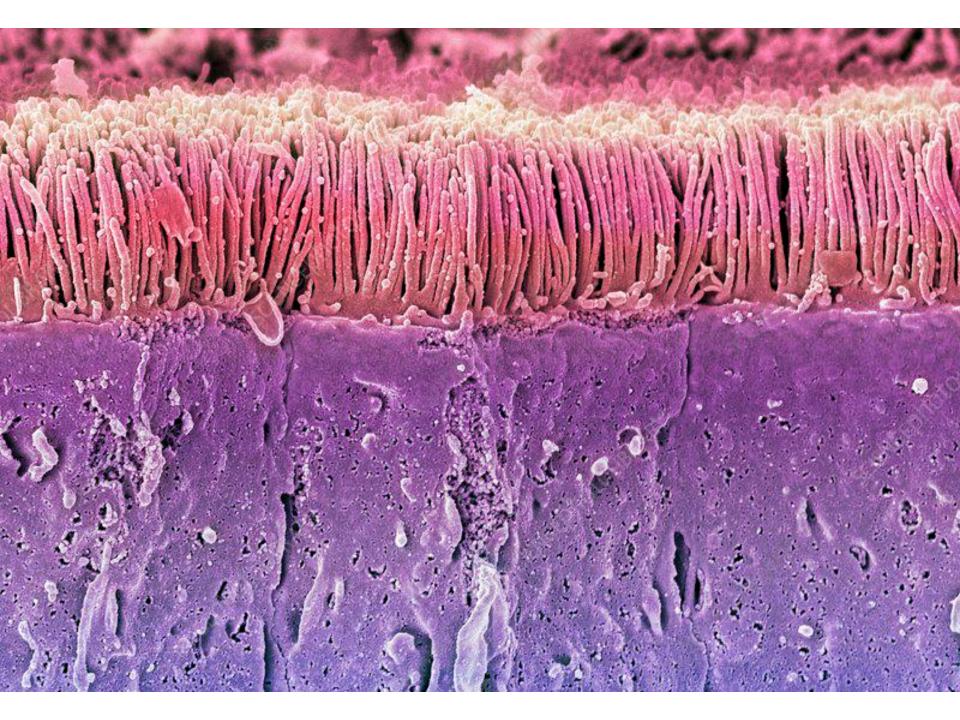


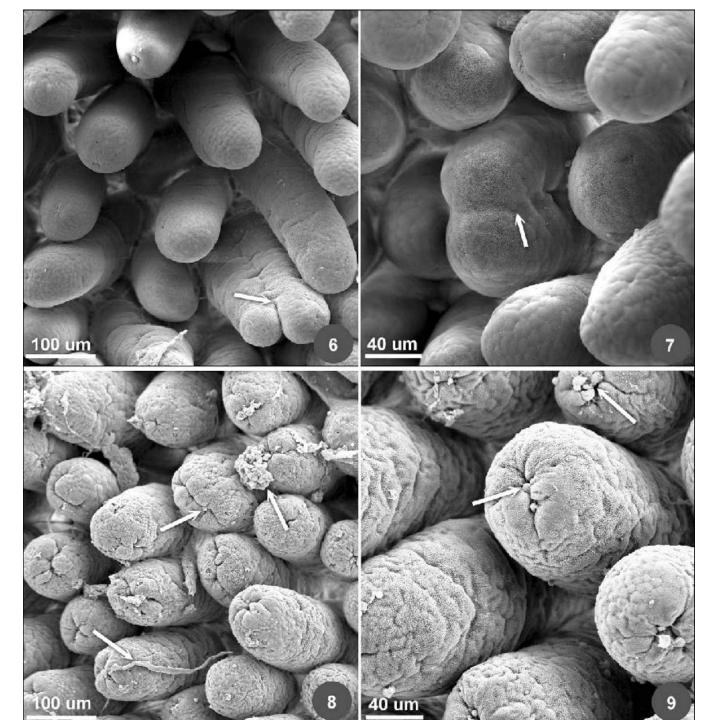




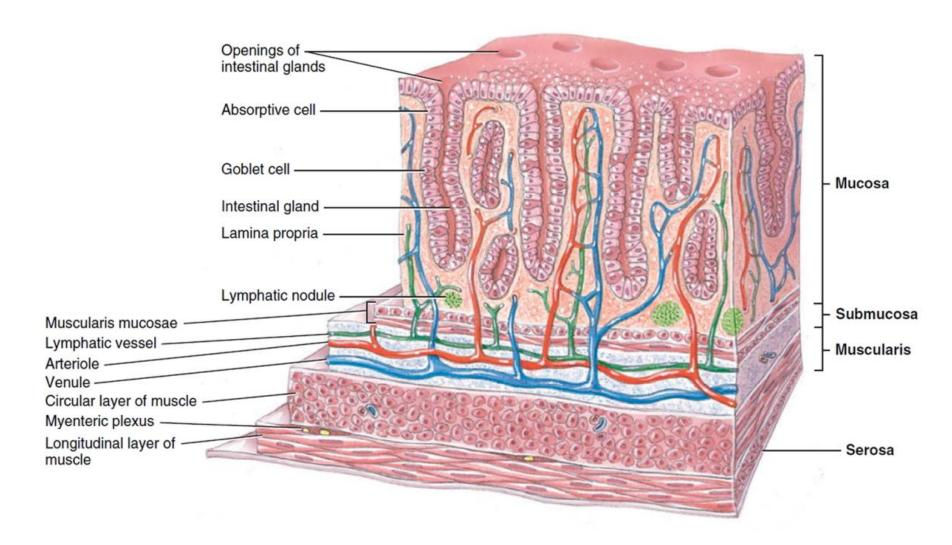


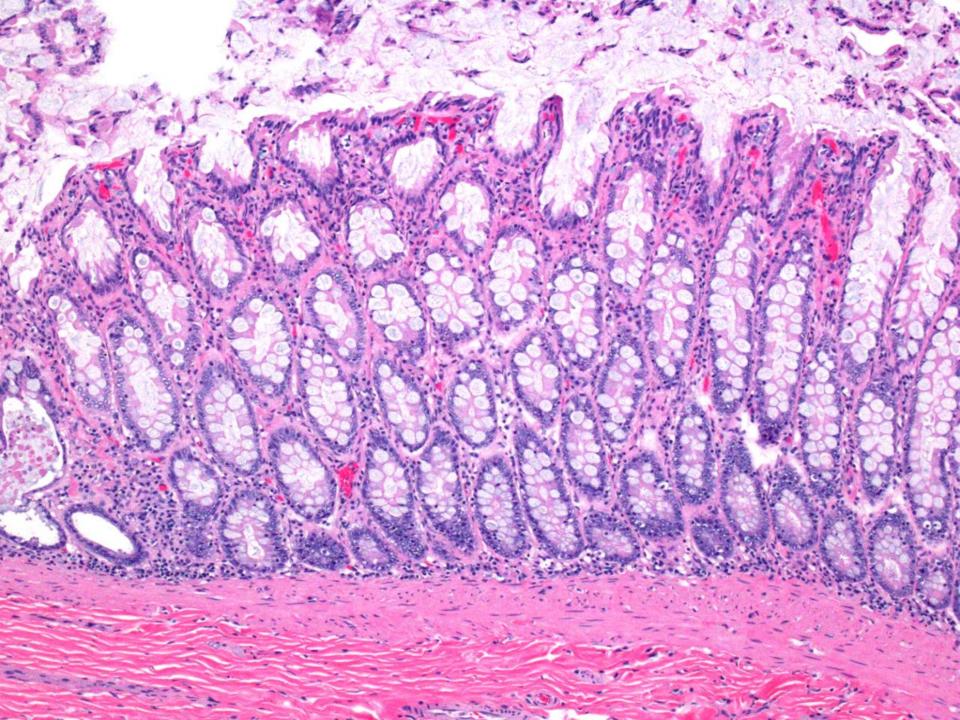


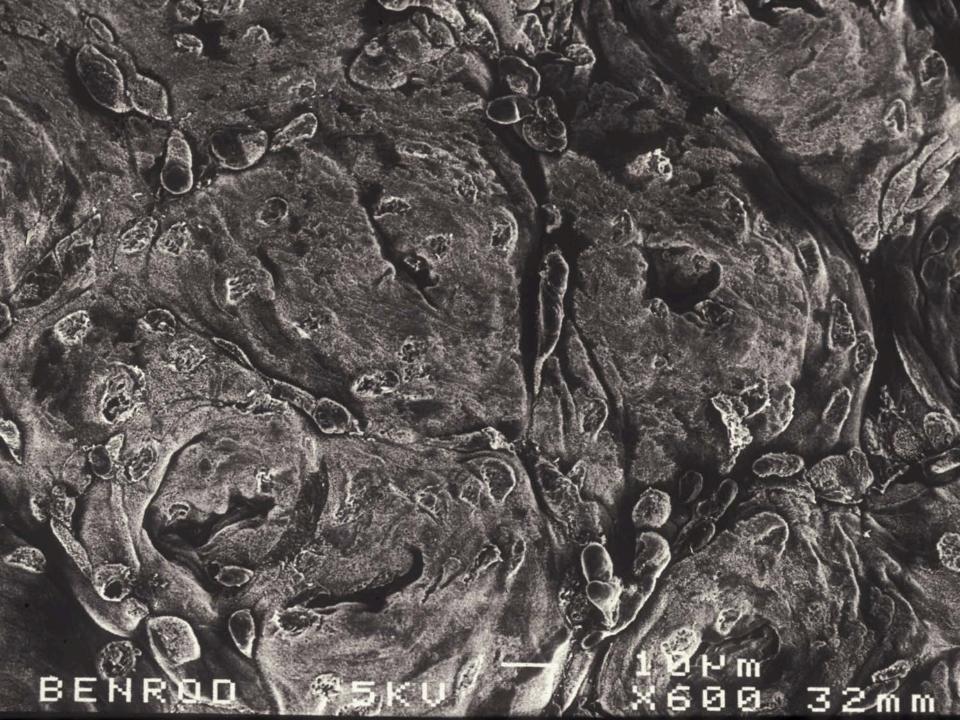




#### Large intestine







#### **FUNCTIONS**

- Absorption of nutrients/excretion of waste
- Mechanisms
  - Motility
  - Secretion
  - Digestion
  - Absorption
  - Immune surveillance and tolerance



#### A-Normal anatomy and physiology

B-Main disease processes

C-Postmortem/incidental findings

# Main disease processes

- 1-Inflammation
- 2-Degeneration3-Growth disorders
- 4 Developmental

## Main disease processes

- 1-Inflammation
- 2-Degeneration
- 3-Growth disorders
- 4-Developmental

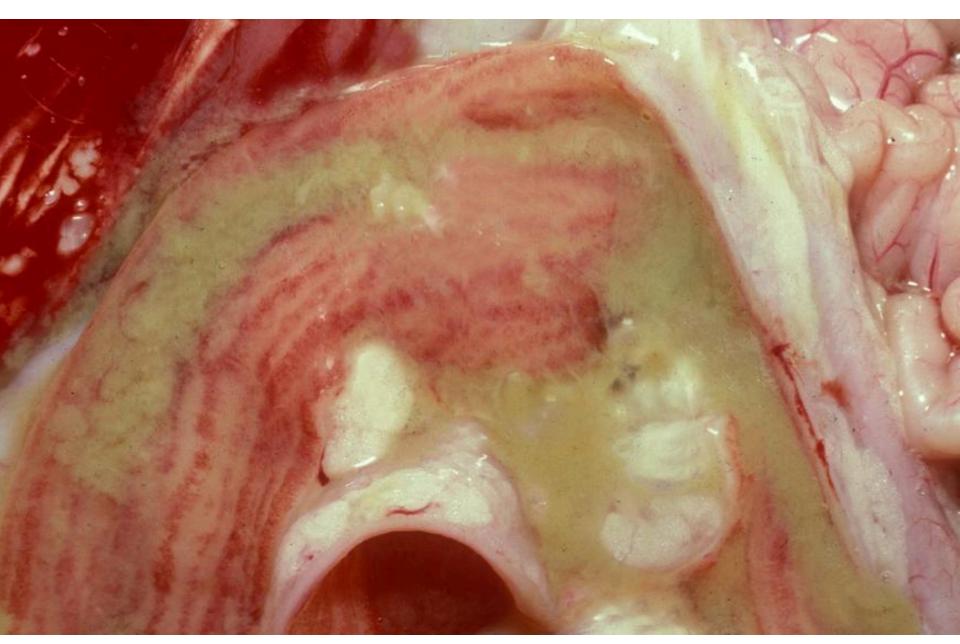
# Gastritis, enteritis, typhlitis, colitis, proctitis, anusitis

(combinations)

#### INFLAMMATION

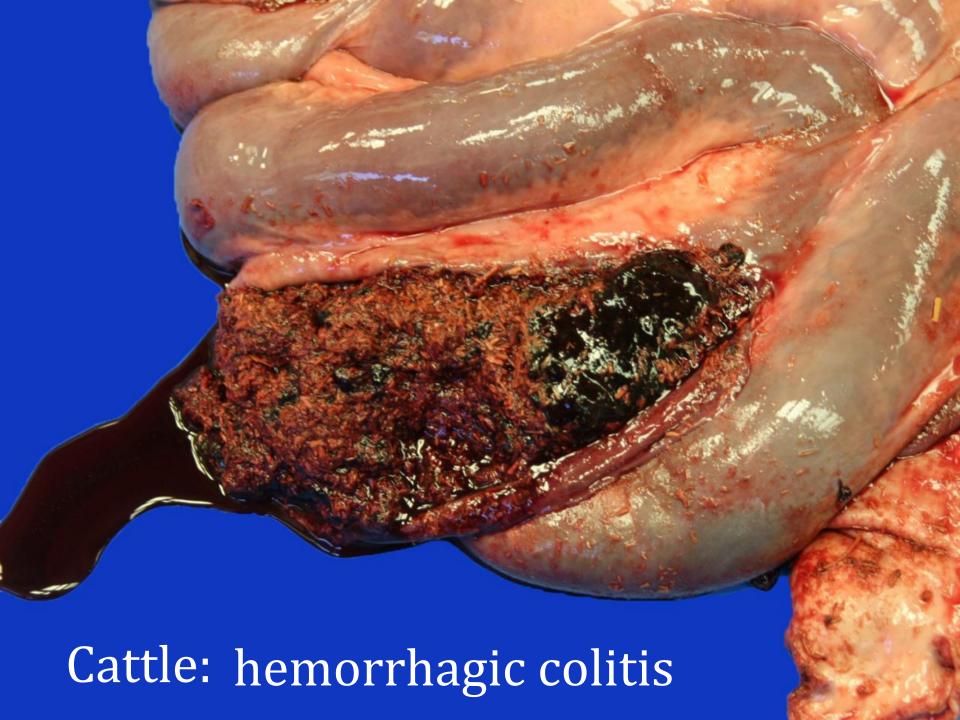
- \* Suppurative
- \* Fibrinous
- \* Granulomatous
- \* Hemorrhagic
- \* Necrotizing
- \* Proliferative
- \* Ulcerative
- \* Catarrhal

Goat: Suppurative colitis









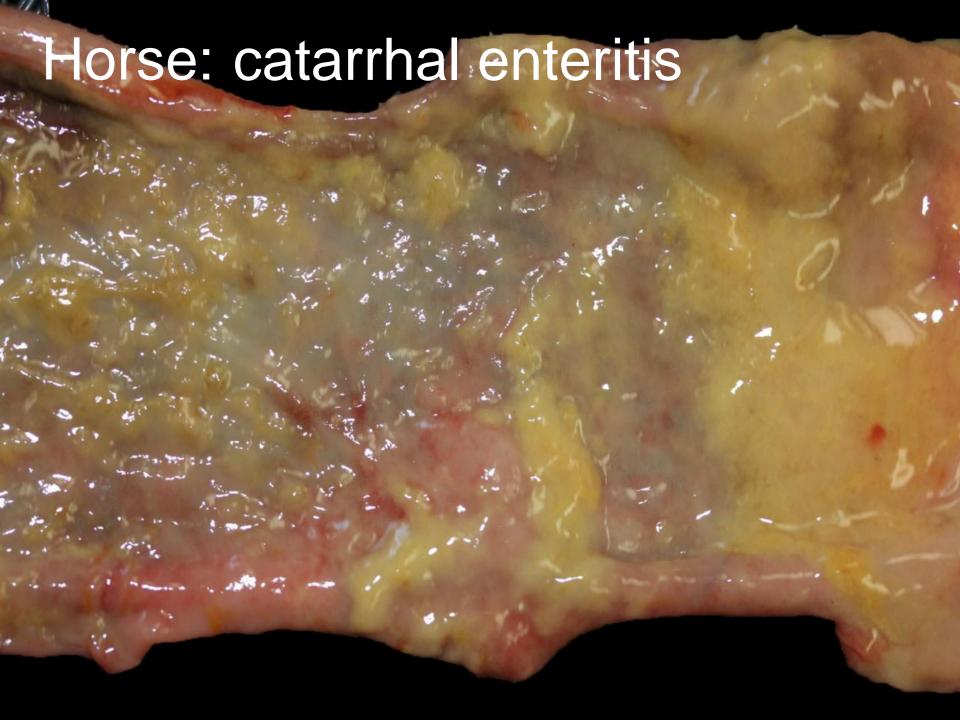
#### Foal: necrotizing enteritis



#### Foal: proliferative enteritis







## Main disease processes

- 1-Inflammation
- 2-Degeneration/Necrosis
- 3-Growth disorders
- 4-Developmental

#### DEGENERATION/NECROSIS

1-Torsion/volvulus/entrapment/intussusception/ strangulation

2-Thrombosis /embolism

3-Mucosal pressure

4-Obstruction

#### DEGENERATION/NECROSIS

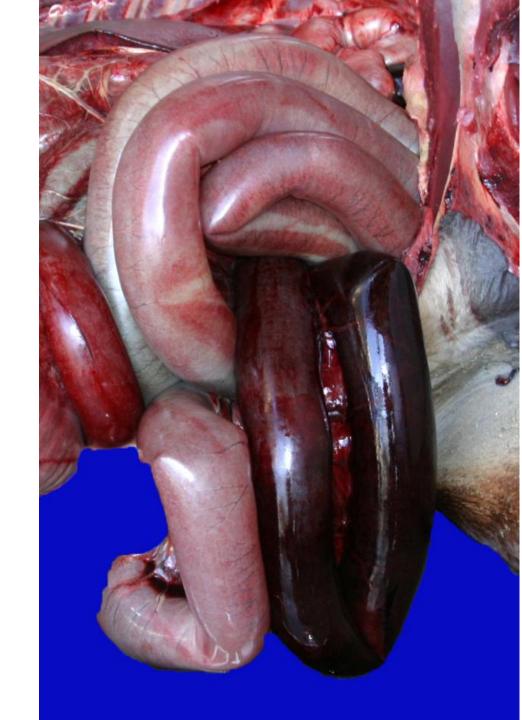
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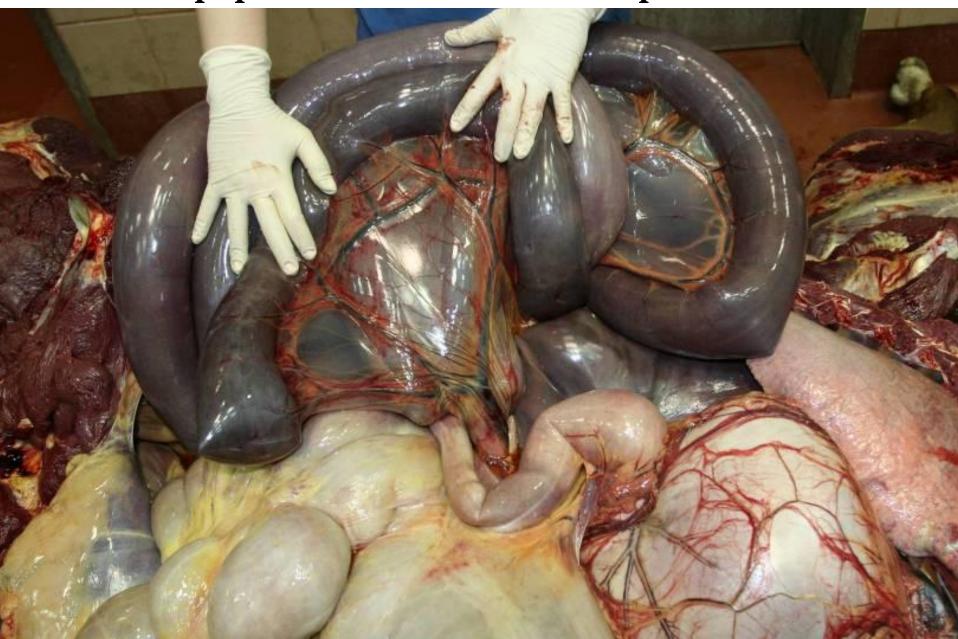
3-Mucosal pressure

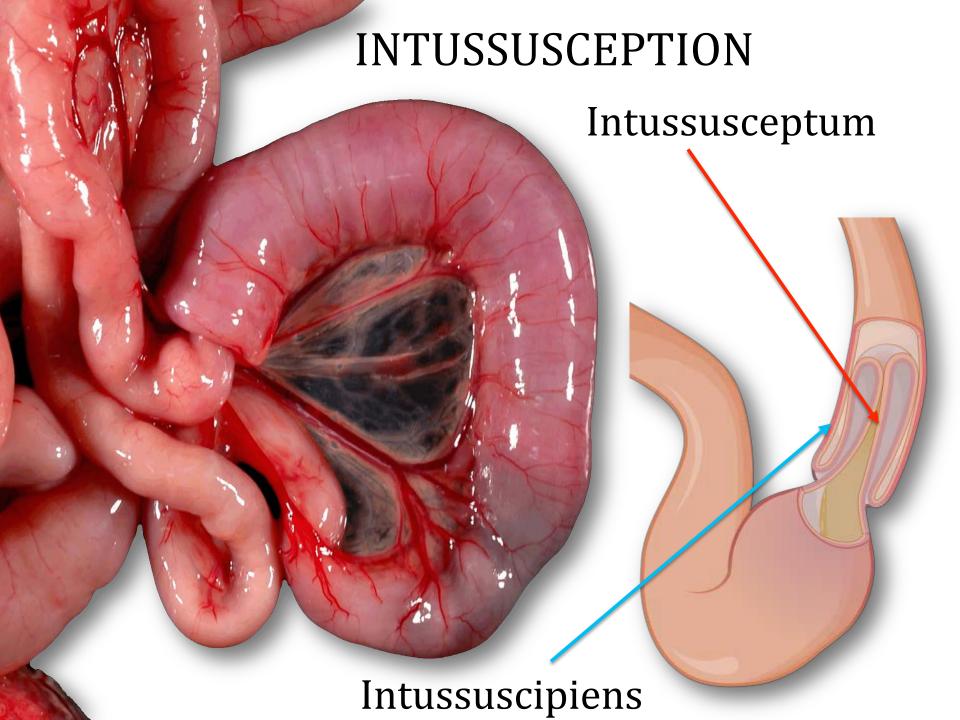
4-Obstruction

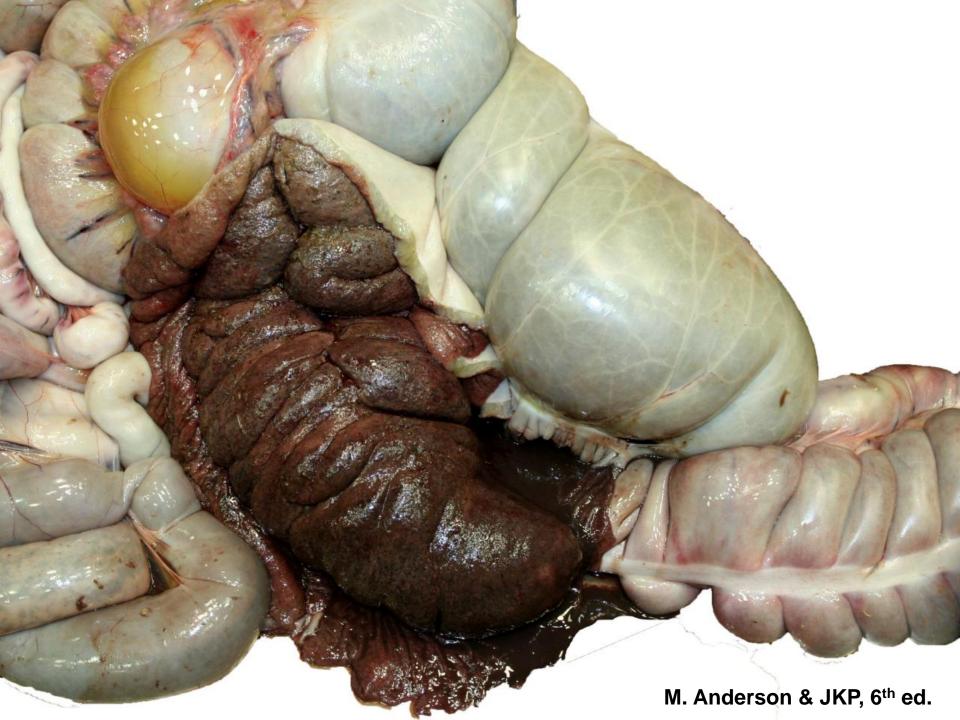
#### VOLVULUS/ TORSION

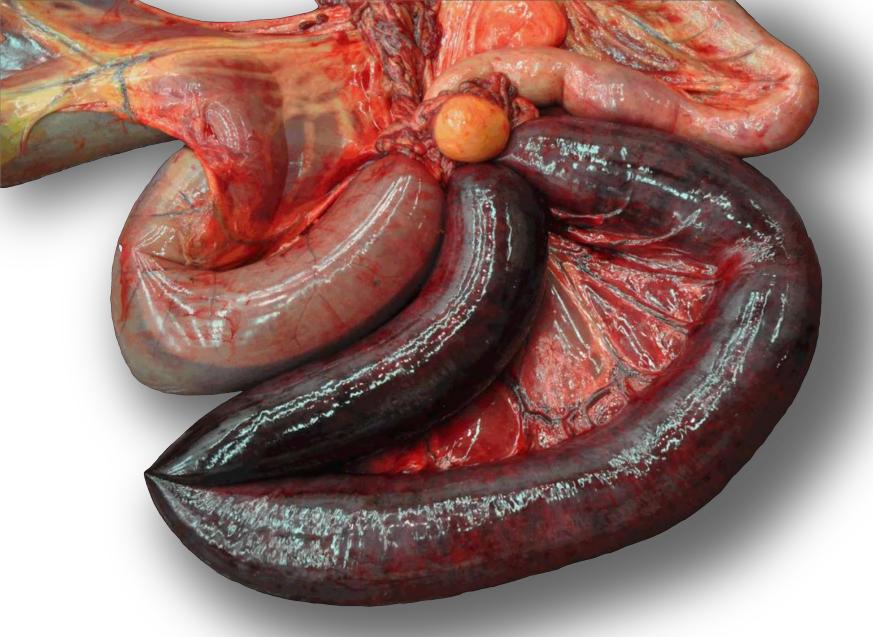


Horse: epiploic foramen entrapment









#### **STRANGULATION**

#### DEGENERATION/NECROSIS

1-Torsion/volvulus/entrapment/intussusception/ strangulation

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# OBSTRUCTION

\* Physical

\* Functional

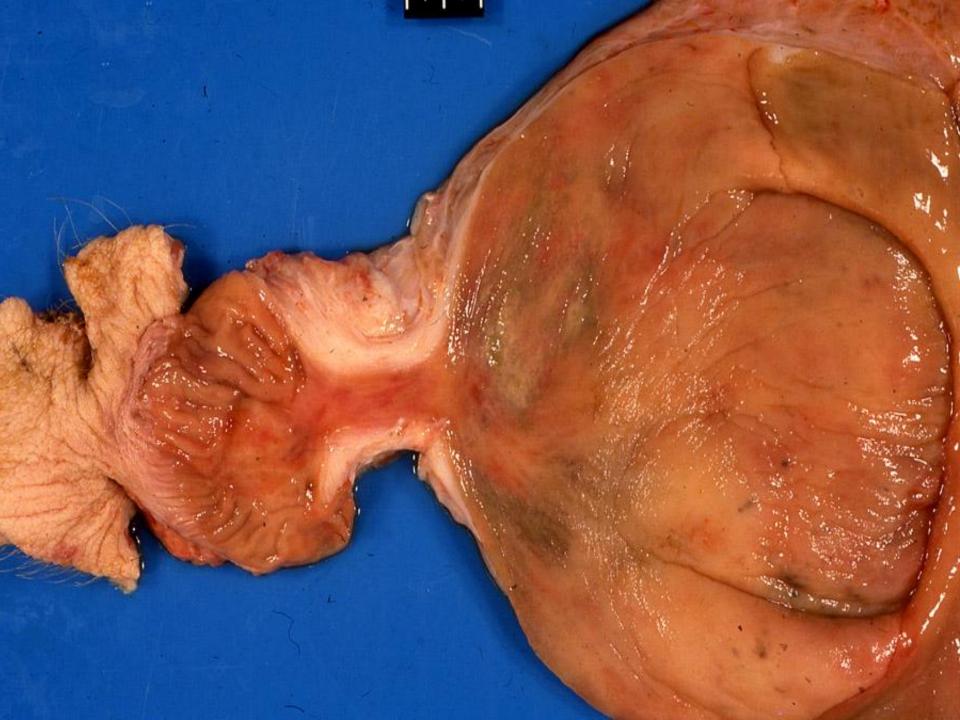
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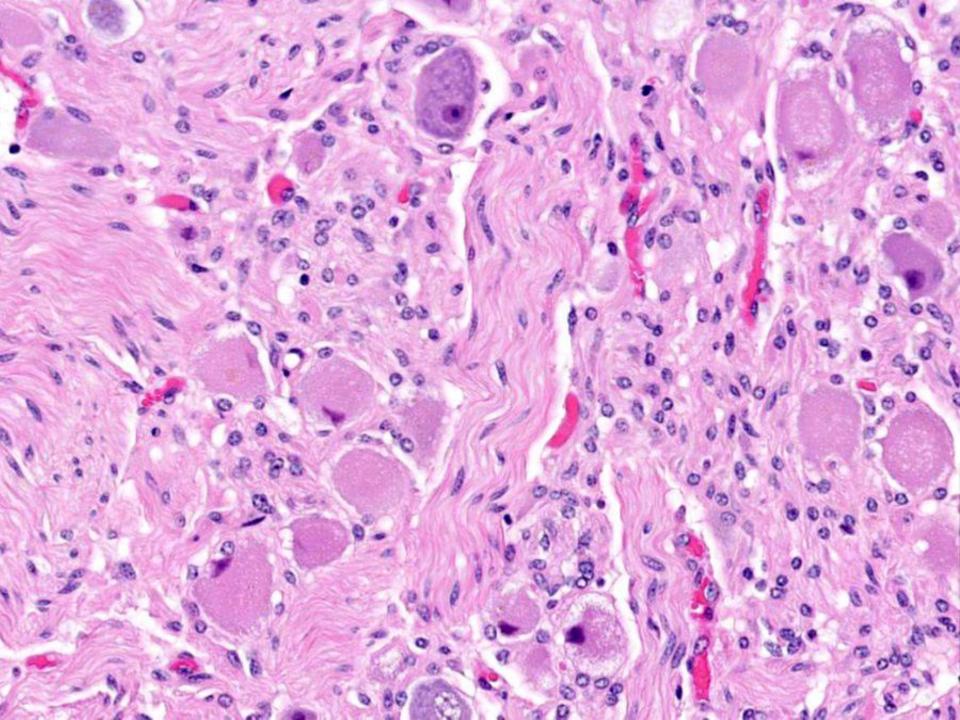
# OBSTRUCTION

\* Physical

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# Main disease processes

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### **NEOPLASIA**

Primary

Metastasis (less common)

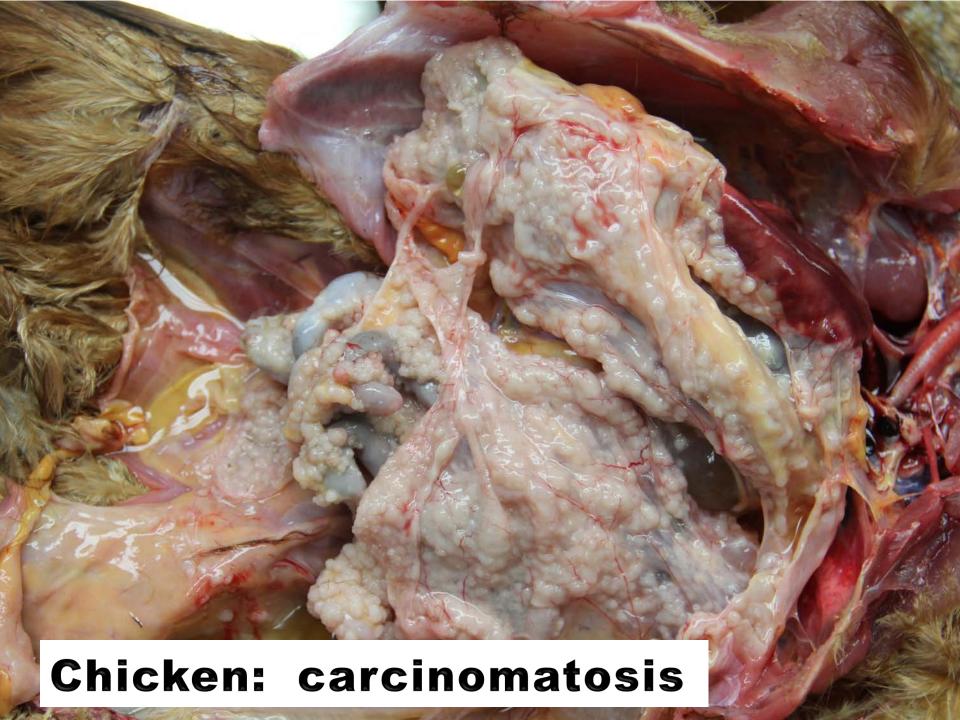
Adenomas, polyps

Carcinomas, adenocarcinomas

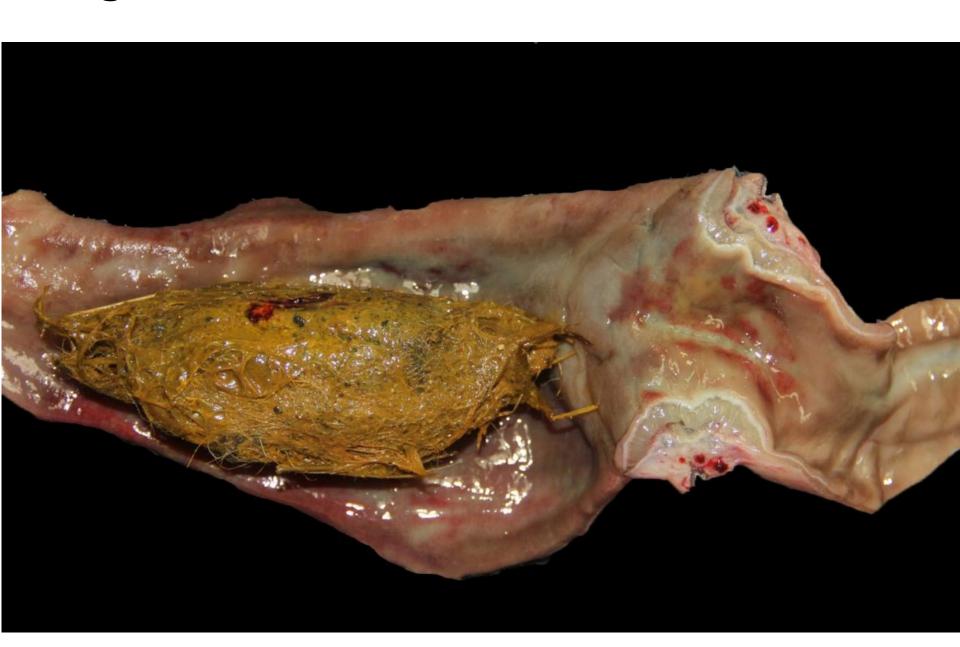
Neuroendocrine (carcinoids)

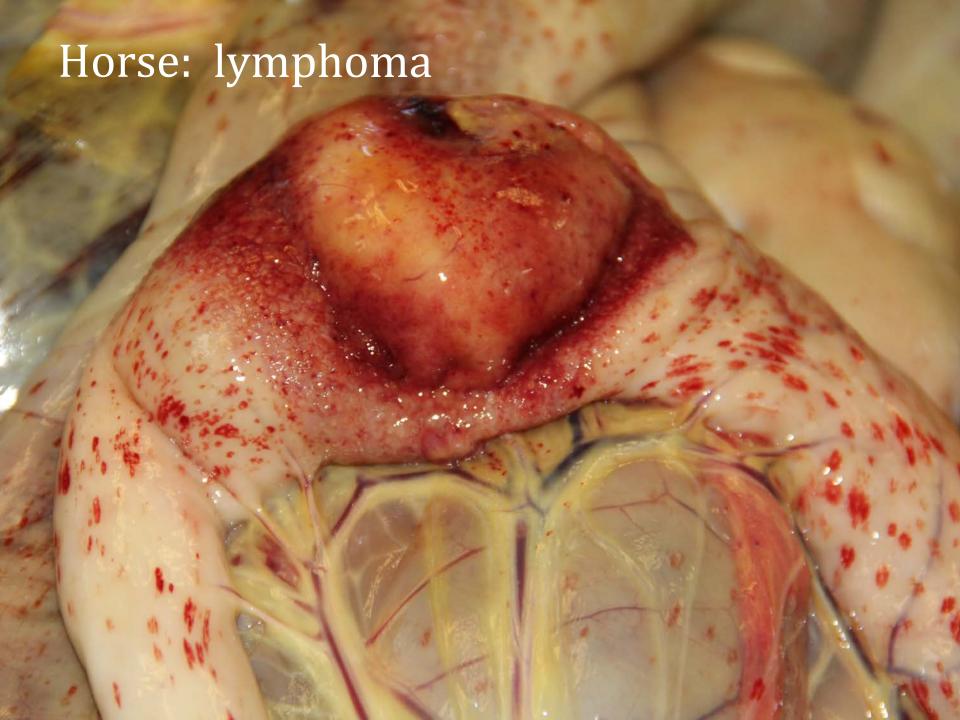
- Fibrosarcoma

Lymphosarcoma



### Dog: carcinoma





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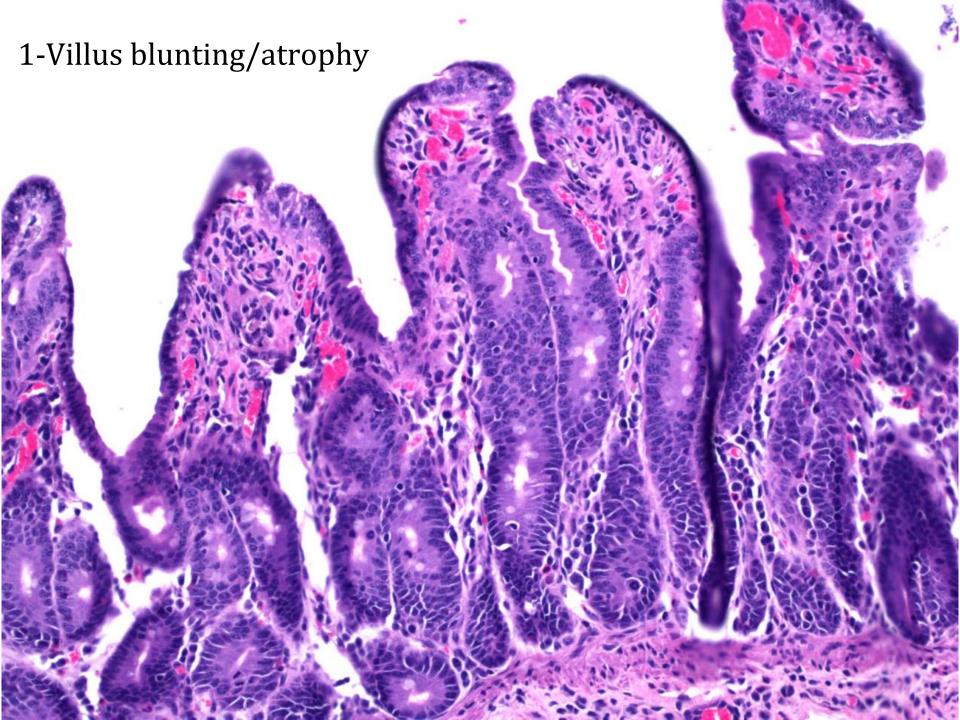


# Main disease processes

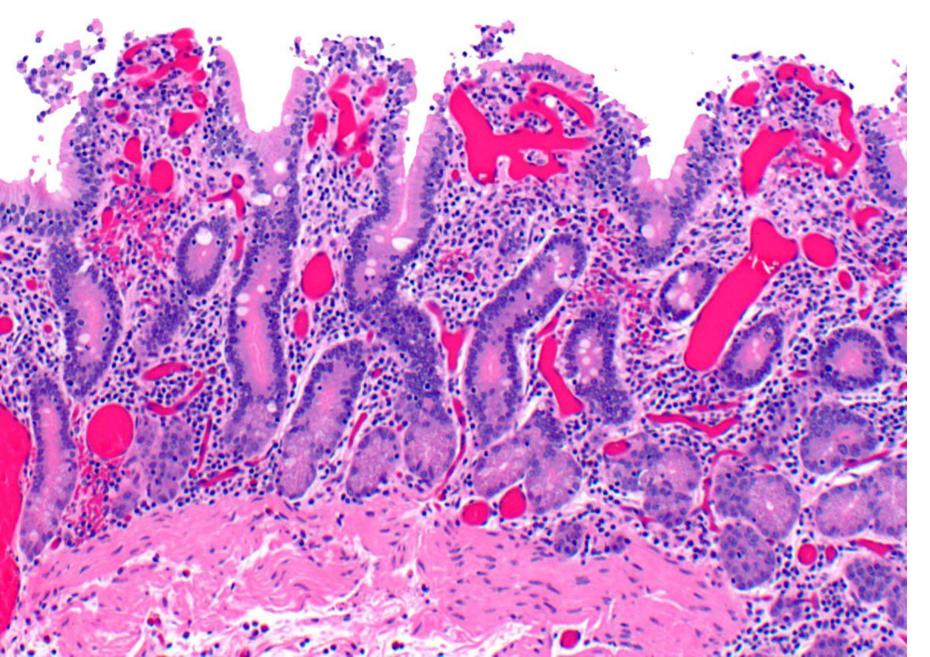
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#### COMMON RESPONSES OF THE INTESTINE TO DISEASE

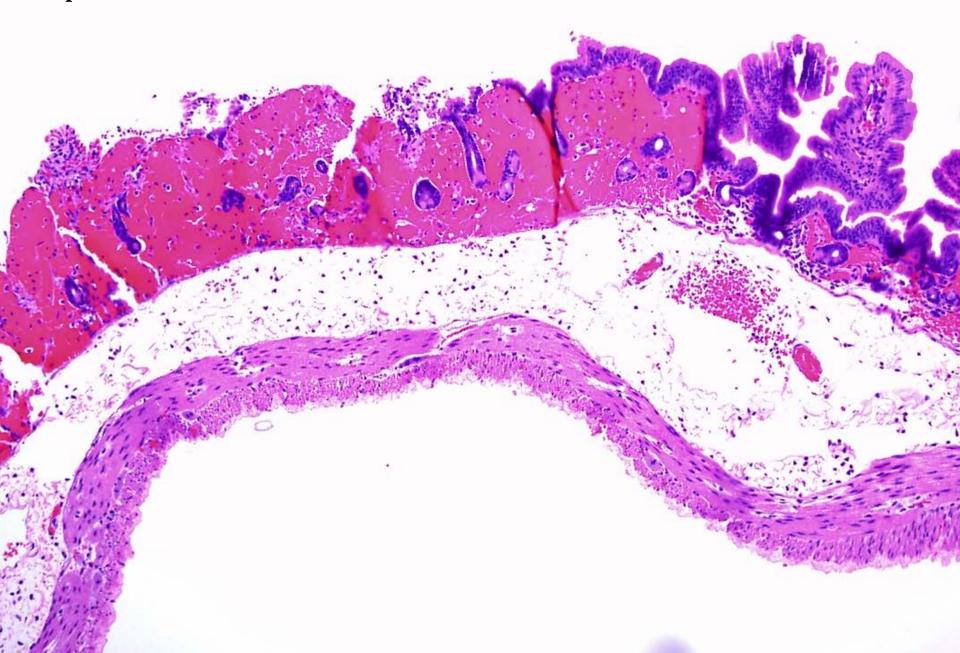
- 1-Villus blunting/atrophy
- 2-Vilus fusion
- 3-Epithelial necrosis
- 4-Lamina propria necrosis
- 5-Thrombosis
- 6-Pseudomembranes
- 7-Volcano lesions
- 8-Submucosal edema
- 9-Dilated lymphatics
- 10-Hemorrhage
- 11-Crypt dilation/necrosis/cryptitis
- 12-Mucosal experplasia
- 13-Bacteria/parasites/fungi
- 14-Neoplasia

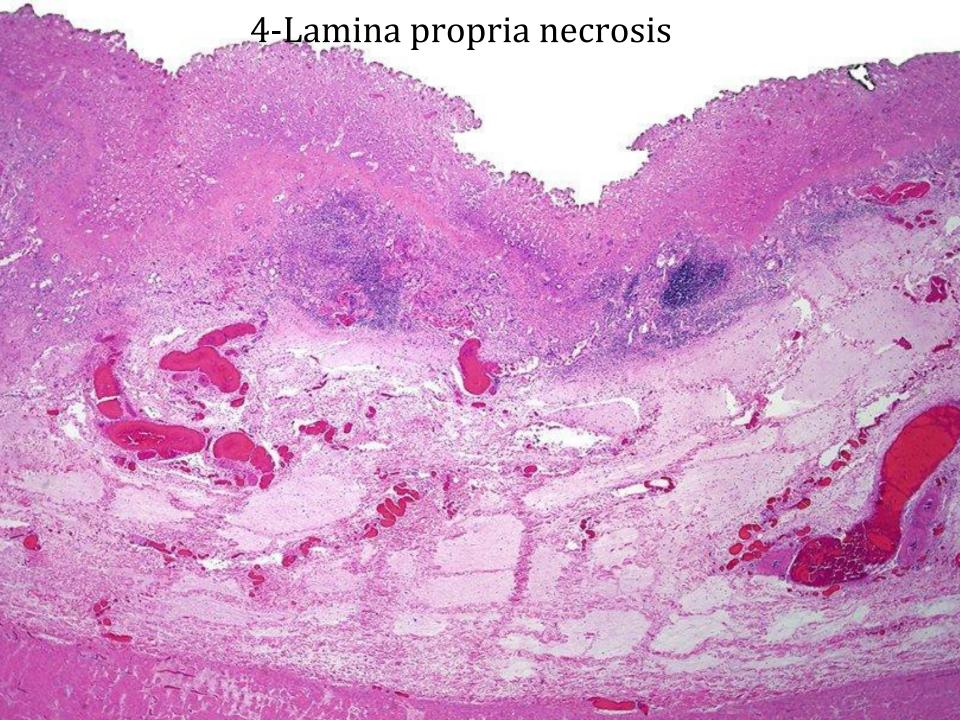


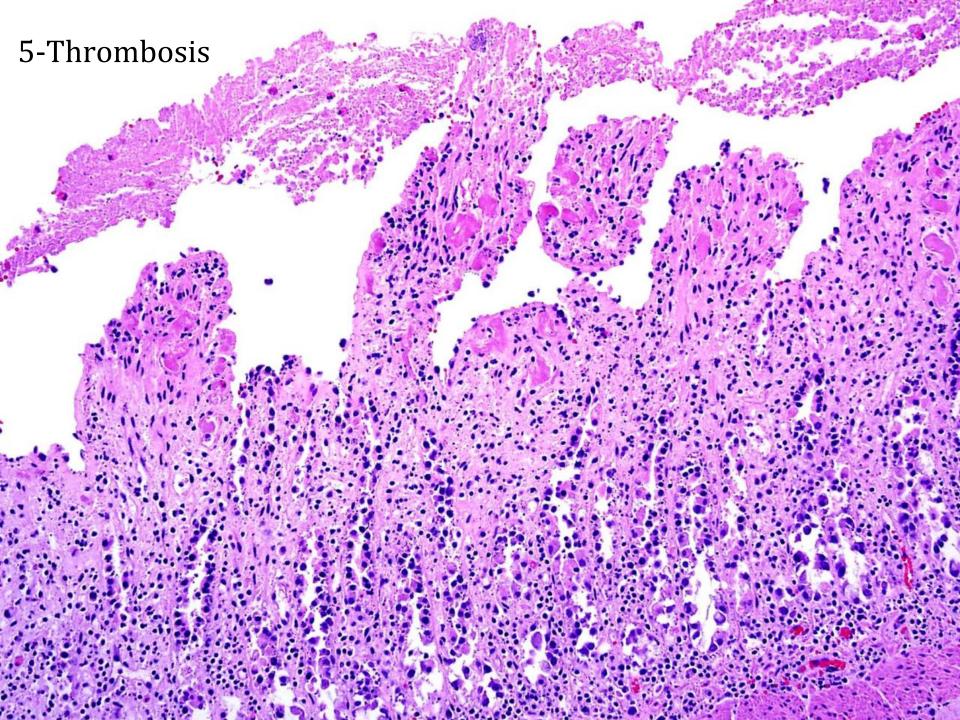
### 2-Vilus fusion



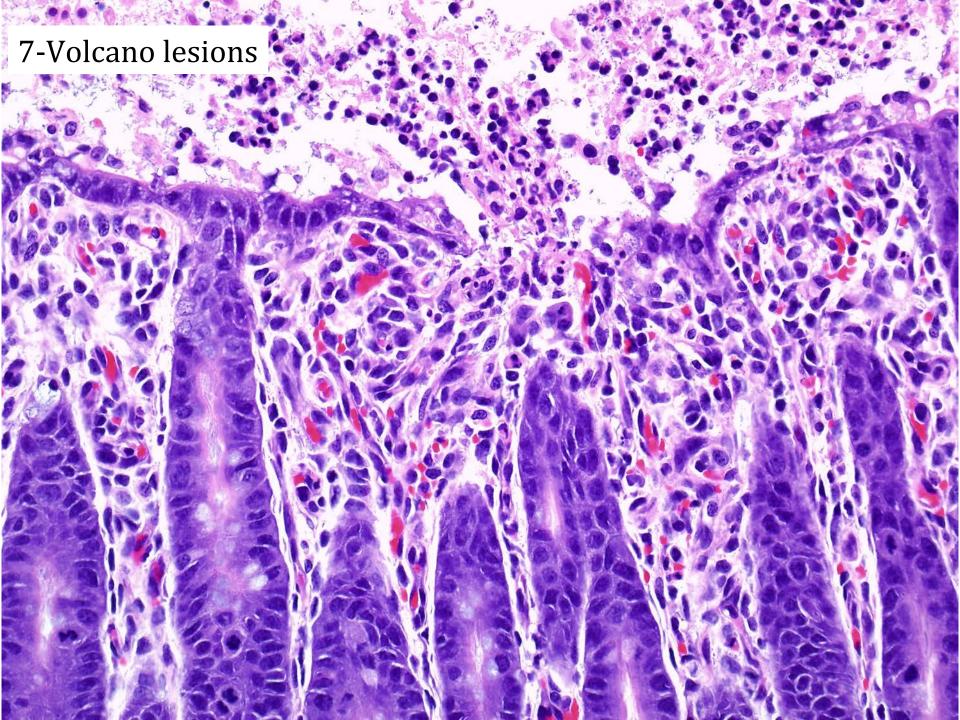
### 3-Epithelial necrosis







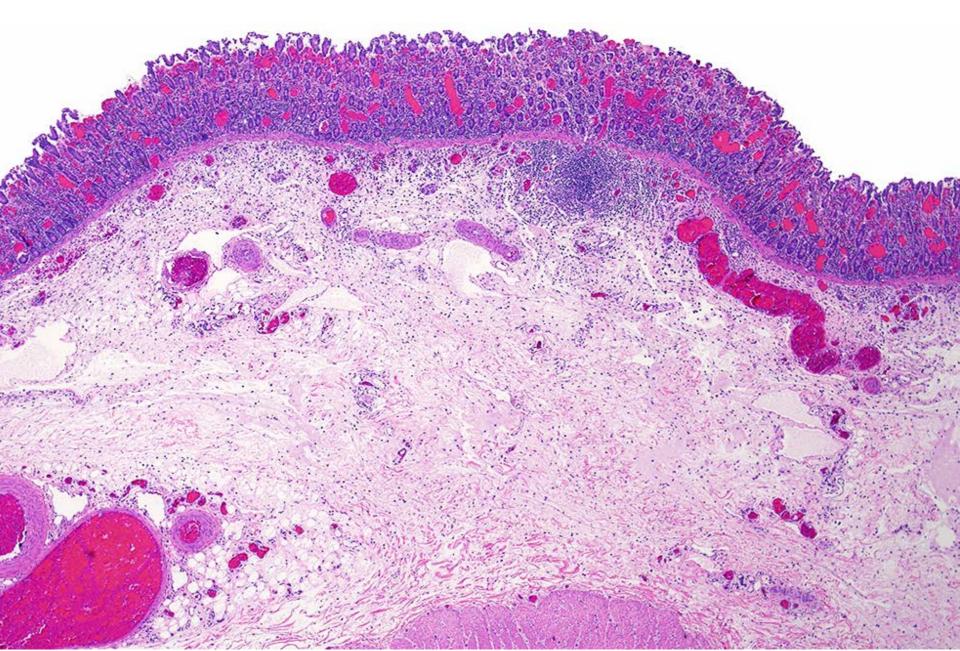




#### 8-submucosal edema

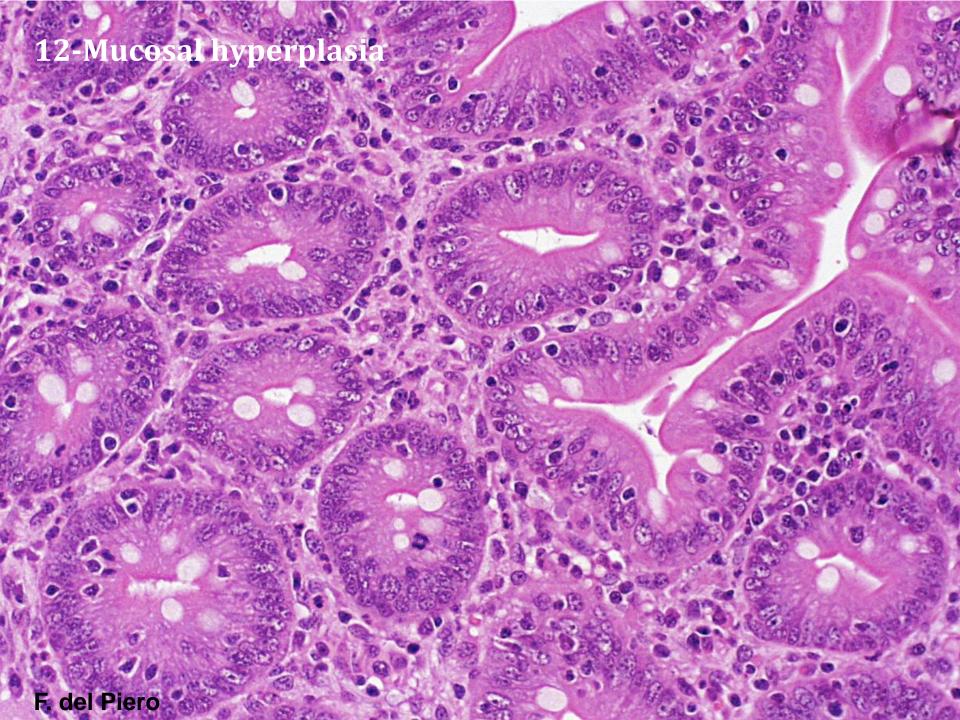


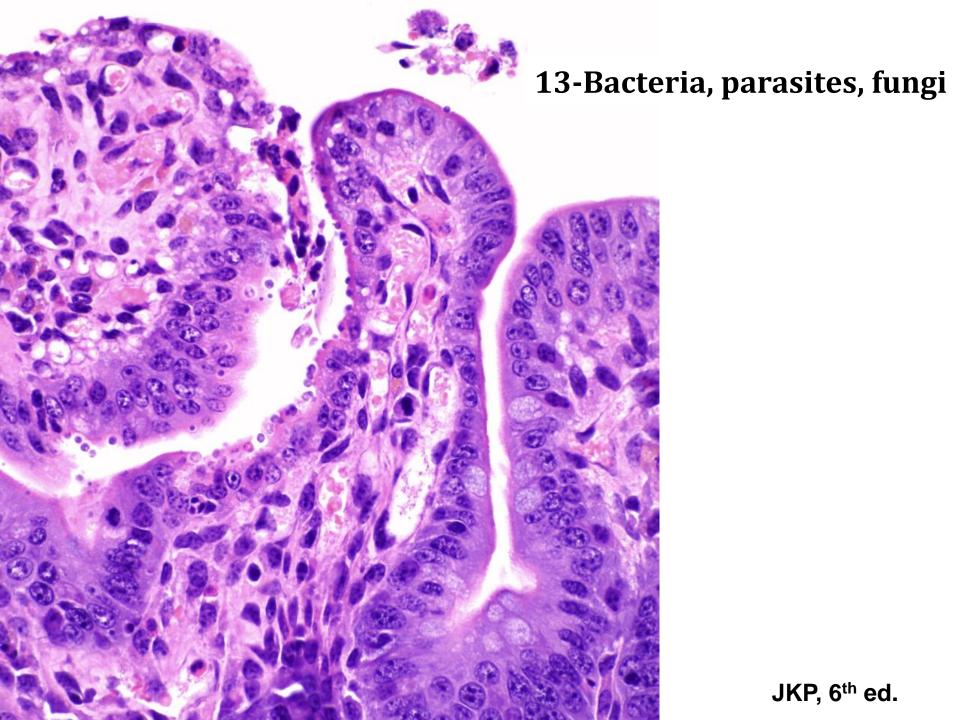
### 9-Dilated lymphatics

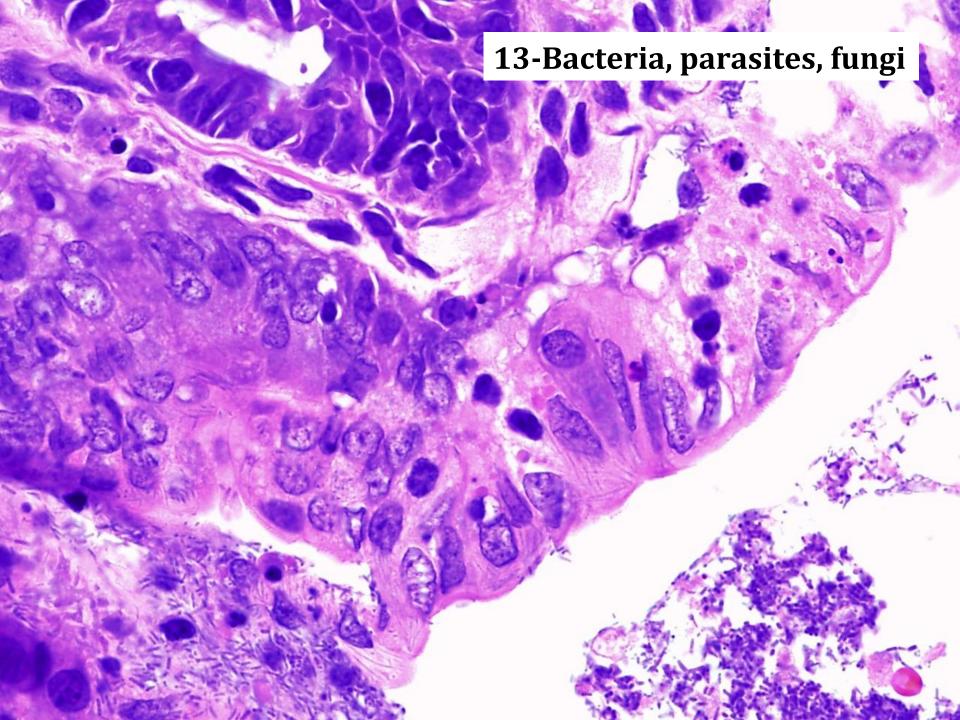


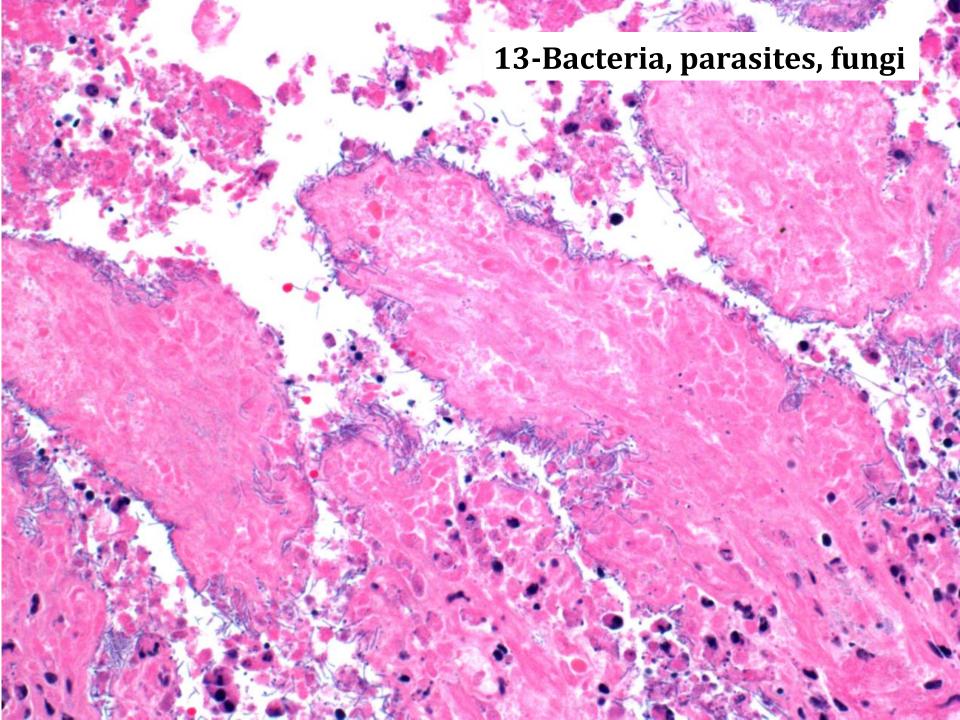


# 11-Crypt dilation/necrosis/cryptitis

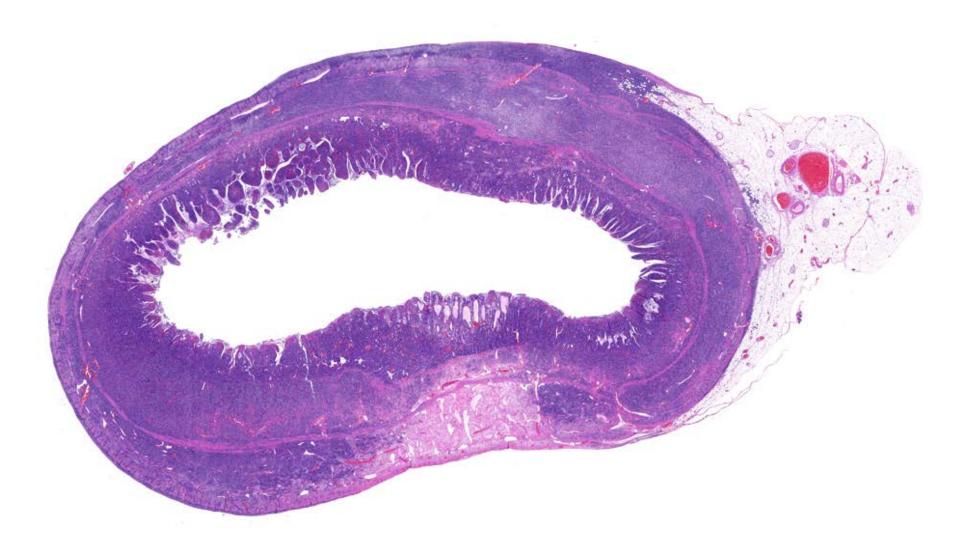


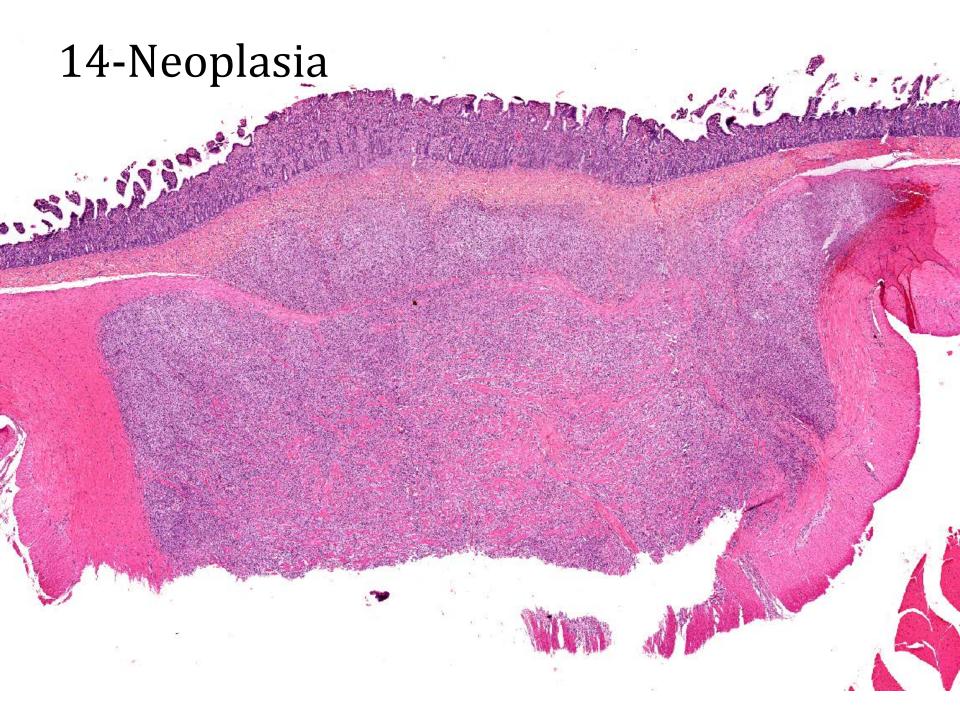






# 14-Neoplasia





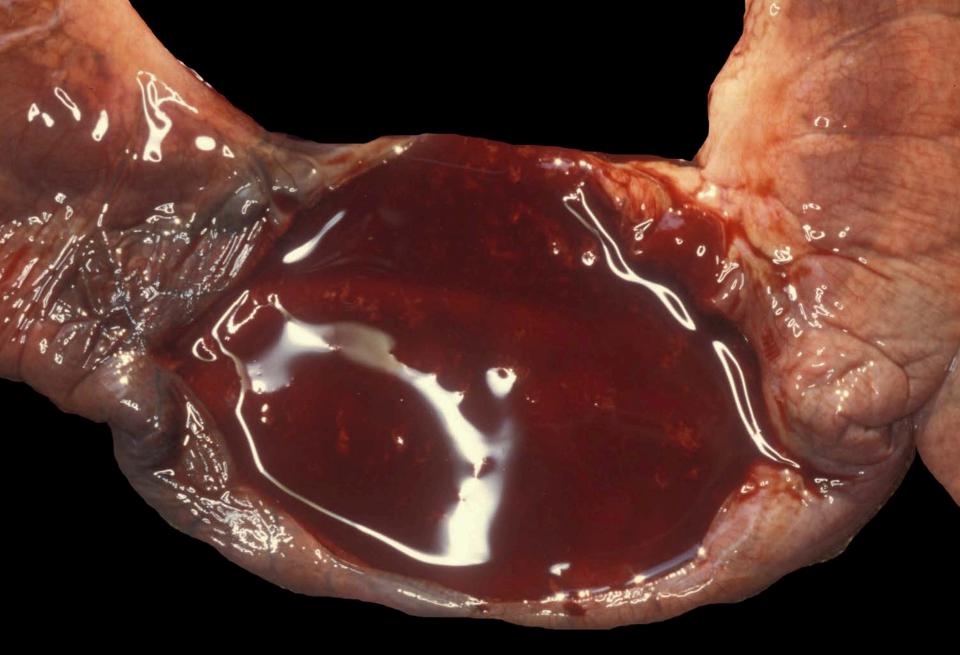
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- 2-Pseudomelanosis
- 3-Agonal intussusception
- 4-Hemomelasma ilei
- 5-Tiger-striping (yastric and large-intestine mucosa)
- 6-Lymphoid tissue
- 7-Post-mortem decomposition

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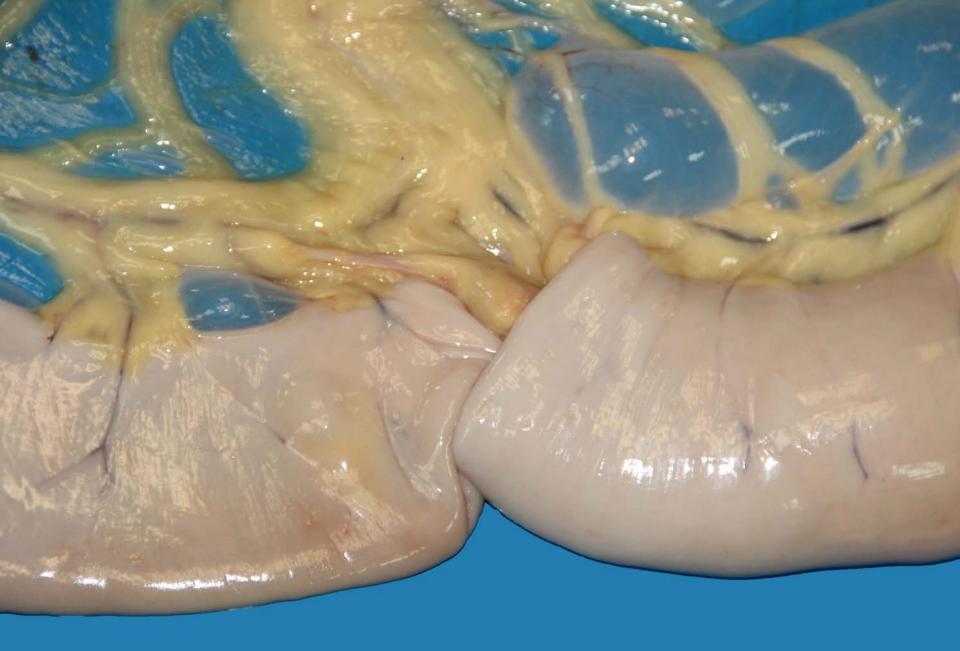
3-Agonal intussusception

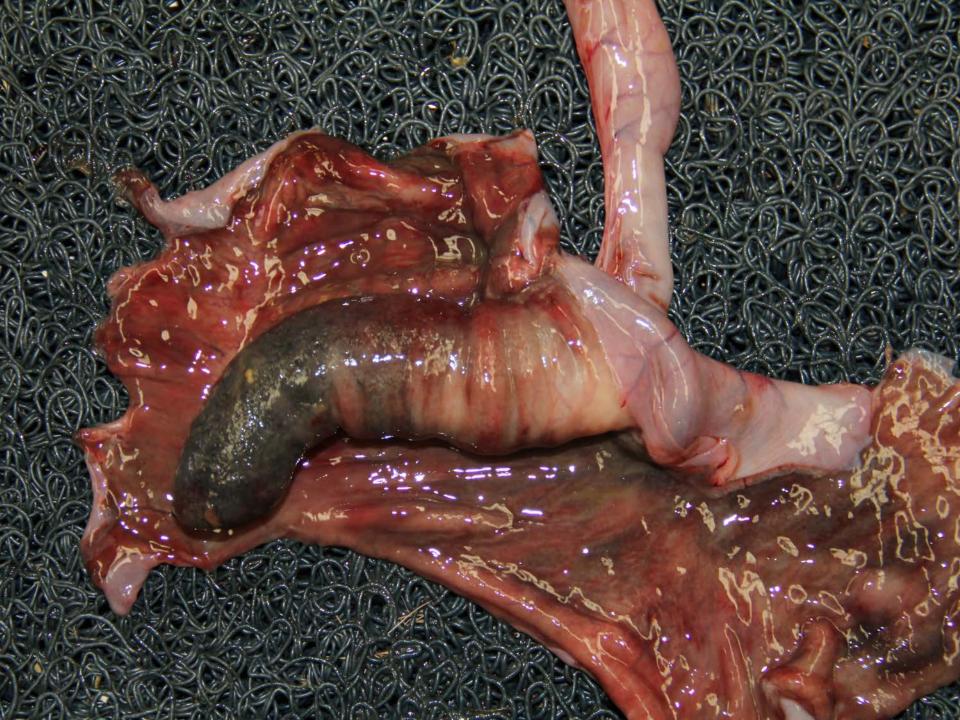
4-Hemomelasma ilei

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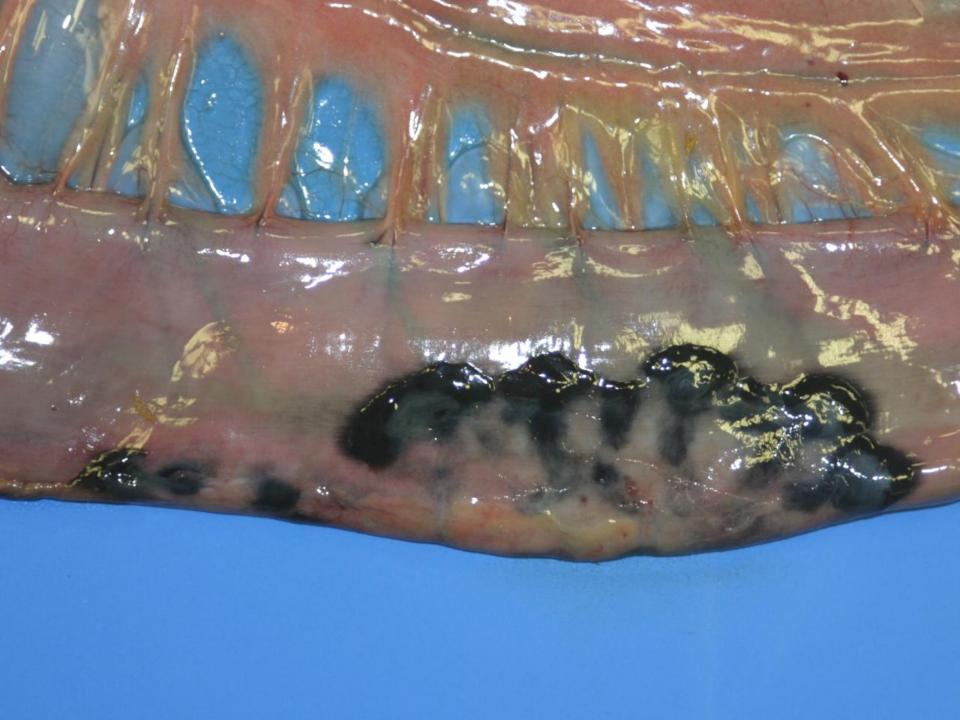
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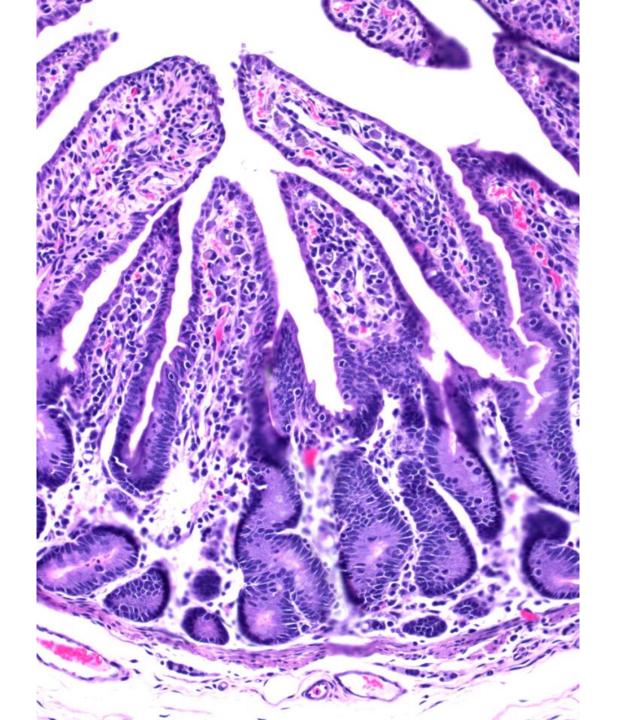


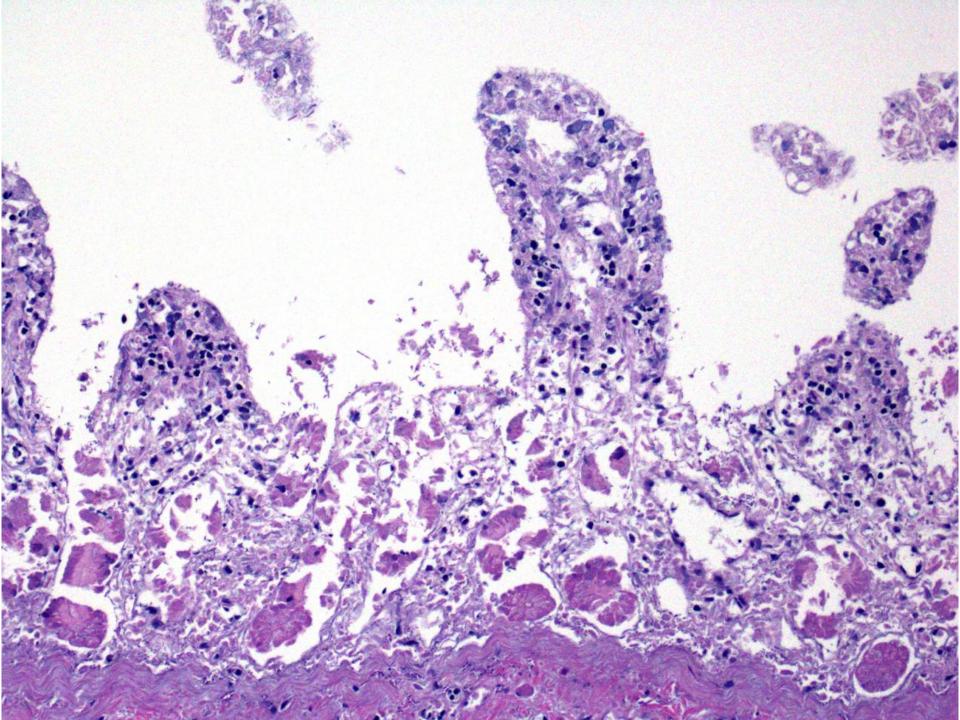
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