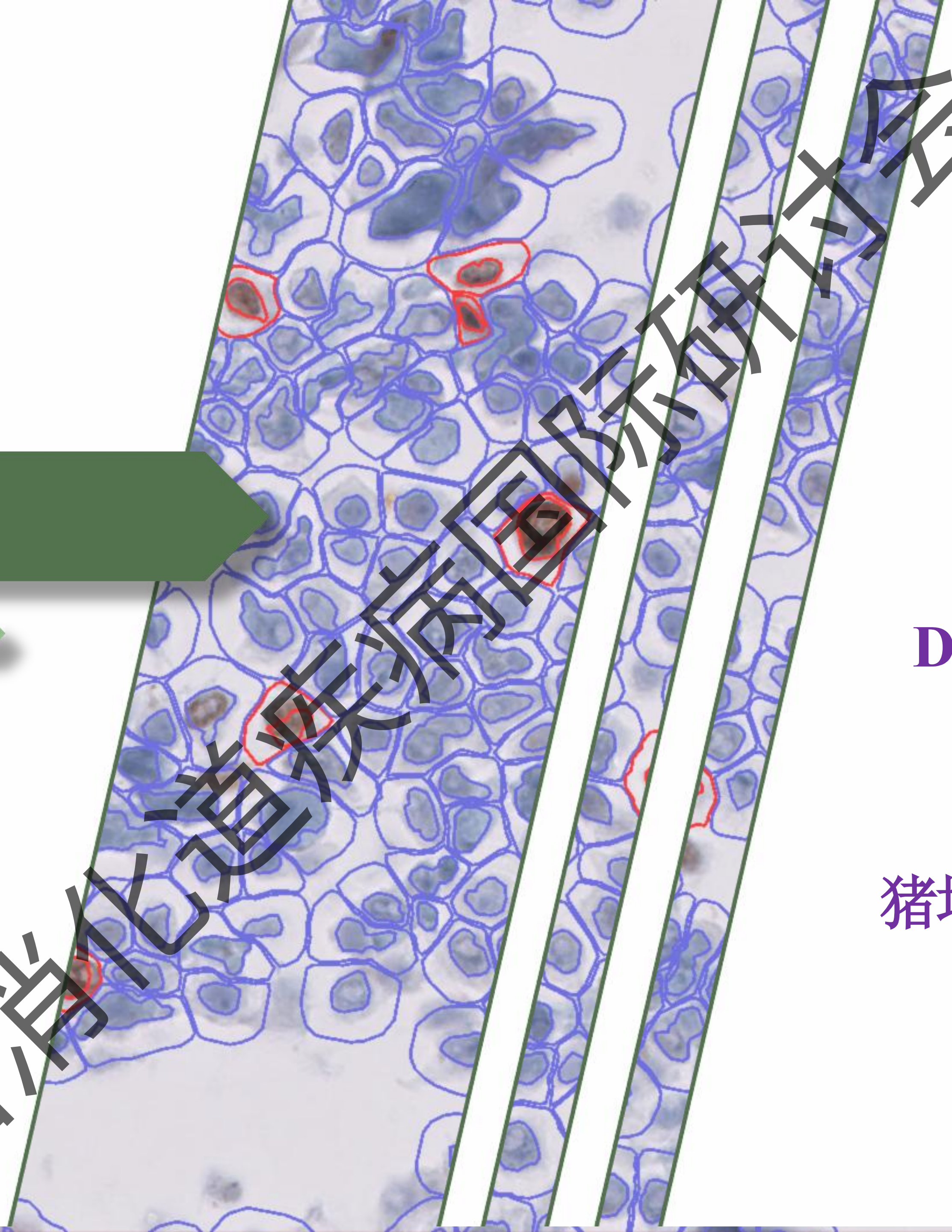
Finn Pathologists
The Veterinary Pathologists

猪消化道疾病国际研讨会
International Pig Digestive Diseases Symposium





# Differential diagnosis of PPE / ileitis
# 鉴别诊断
# 猪增生性肠炎/回肠炎

Sionagh Smith
西奥纳 • 史密斯

# Enteric disease in pigs
# 猪肠道疾病

- Age of pig
  猪只日龄

- Character of diarrhoea
  腹泻特征

- Region of GI tract affected
  受感染的胃肠道区域

- Involvement of other organ systems
  其他器官系统的参与

Clinical
临床

Necropsy / PME
尸检

# Chronic PPE
# 慢性猪增生性肠炎

- Age of pig (6-20 weeks)
  猪只日龄（6-20周）

- Character of diarrhoea: Non-haemorrhagic
  腹泻特征：非出血性

- Region of GI tract affected: Clue - “Ileitis”!
  受感染的胃肠道区域：提示- “回肠炎”！

- Involvement of other organ systems – not really
  其他器官系统参与-不一定

What ARE the differentials….?

有什么区别？

Q1. Which of the following is the *least likely* differential for non-haemorrhagic diarrhoea in grower/fattener pigs?

问题1. 生长猪/育肥猪非出血性腹泻*最不可能*与以下哪种疾病区分开？

| | |
|---|---|
| **A** TGE 传染性胃肠炎 | **B** PPE / Ileitis 增生性肠炎/回肠炎 |
| **C** Colonic spirochaetosis 结肠螺旋体病 | **D** Rotavirus 轮状病毒 |

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Piglets (< 3 weeks)
仔猪（三周龄以下）

- Coronavirus
  冠状病毒
- Rotavirus
  轮状病毒
- *E. coli*
  大肠杆菌
- *Clostridium* spp.
  梭菌属
- *Isospora suis* (coccidiosis)
  猪等孢球虫（球虫病）

# Sionagh's "go-to" differential list
# 西奥纳的"待"鉴别清单



1. PED/TGE (coronavirus)
   猪流行性腹泻/传染性胃肠炎（冠状病毒）

2. Oedema disease/post-weaning diarrhoea
   水肿病/断奶后腹泻

3. Swine dysentery
   猪痢疾

4. Colonic spirochaetosis
   结肠螺旋体病

5. Salmonella
   沙门氏菌

6. Proliferative enteropathy (Lawsonia)
   猪增生性肠炎（劳森菌）

7. PCV2
   猪圆环病毒2型

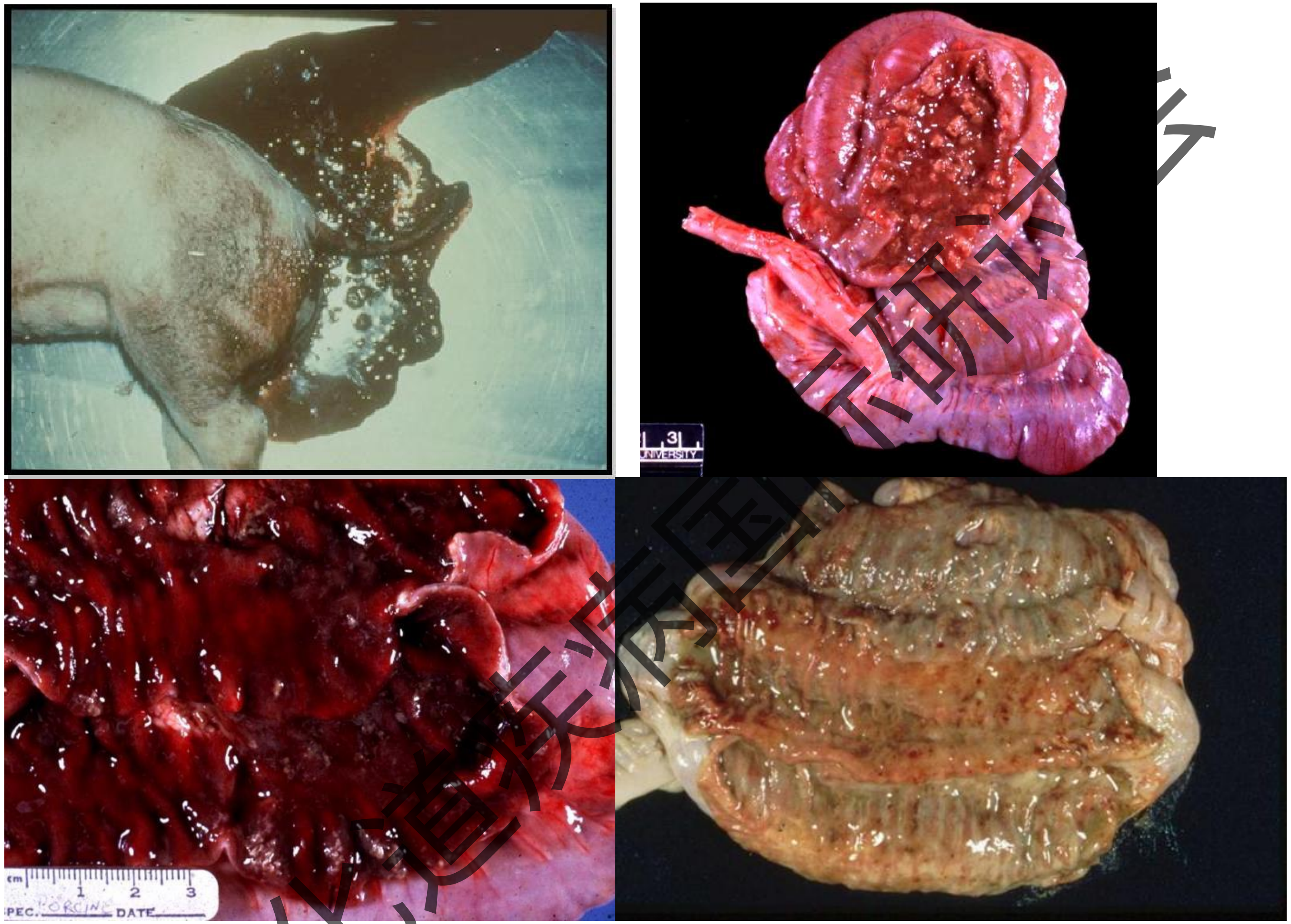
8. Parasites (e.g. Trichuris suis and Ascaris suum)
   寄生虫（如：猪鞭虫和猪蛔虫）

Q2. The images in the next slide all represent the same disease.

问题2. 下一页的图片均展示同一种疾病。

Name the aetiological agent.

说出病原体的名称。

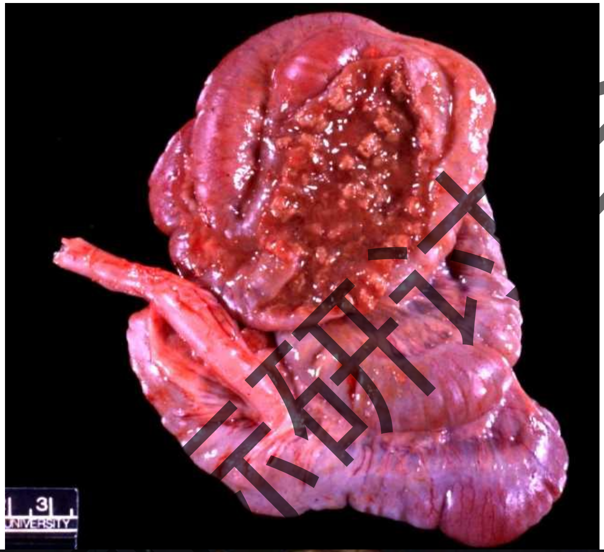


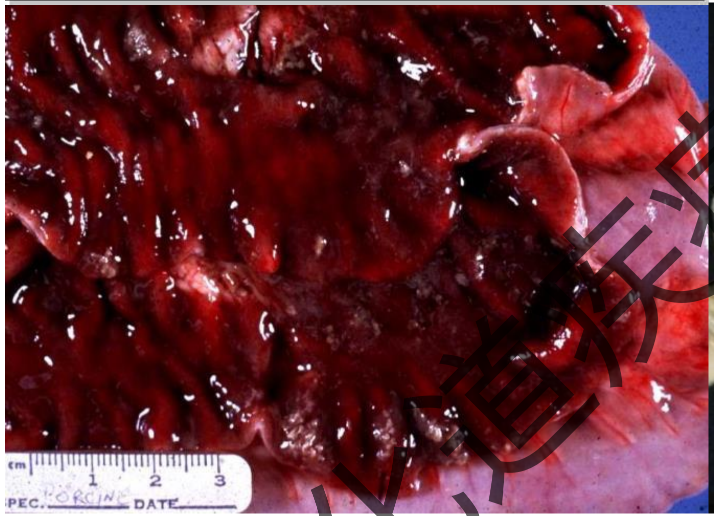

A. *Brachyspira hyodysenteriae*
猪痢疾短螺旋体

B. *Brachyspira pilosicoli*
结肠菌毛样短螺旋体

C. *Escherichia coli*
大肠杆菌

D. *Lawsonia intracellularis*
胞内劳森菌





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大肠杆菌

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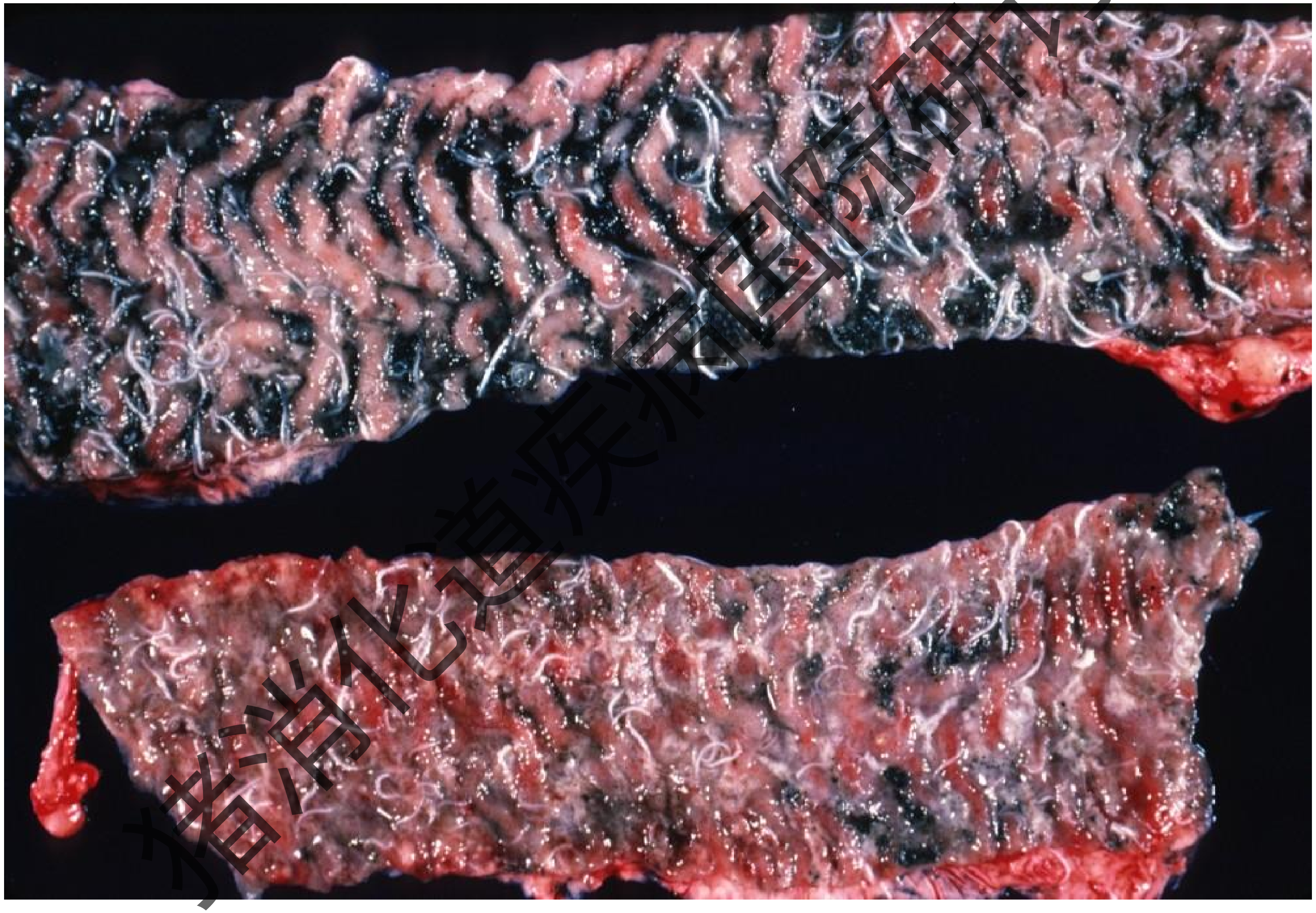
胞内劳森菌

# Fibrinous colitis

# 纤维素性结肠炎

# Catarrhal colitis
# 卡他性结肠炎



# Q3. Which condition does this image BEST represent?

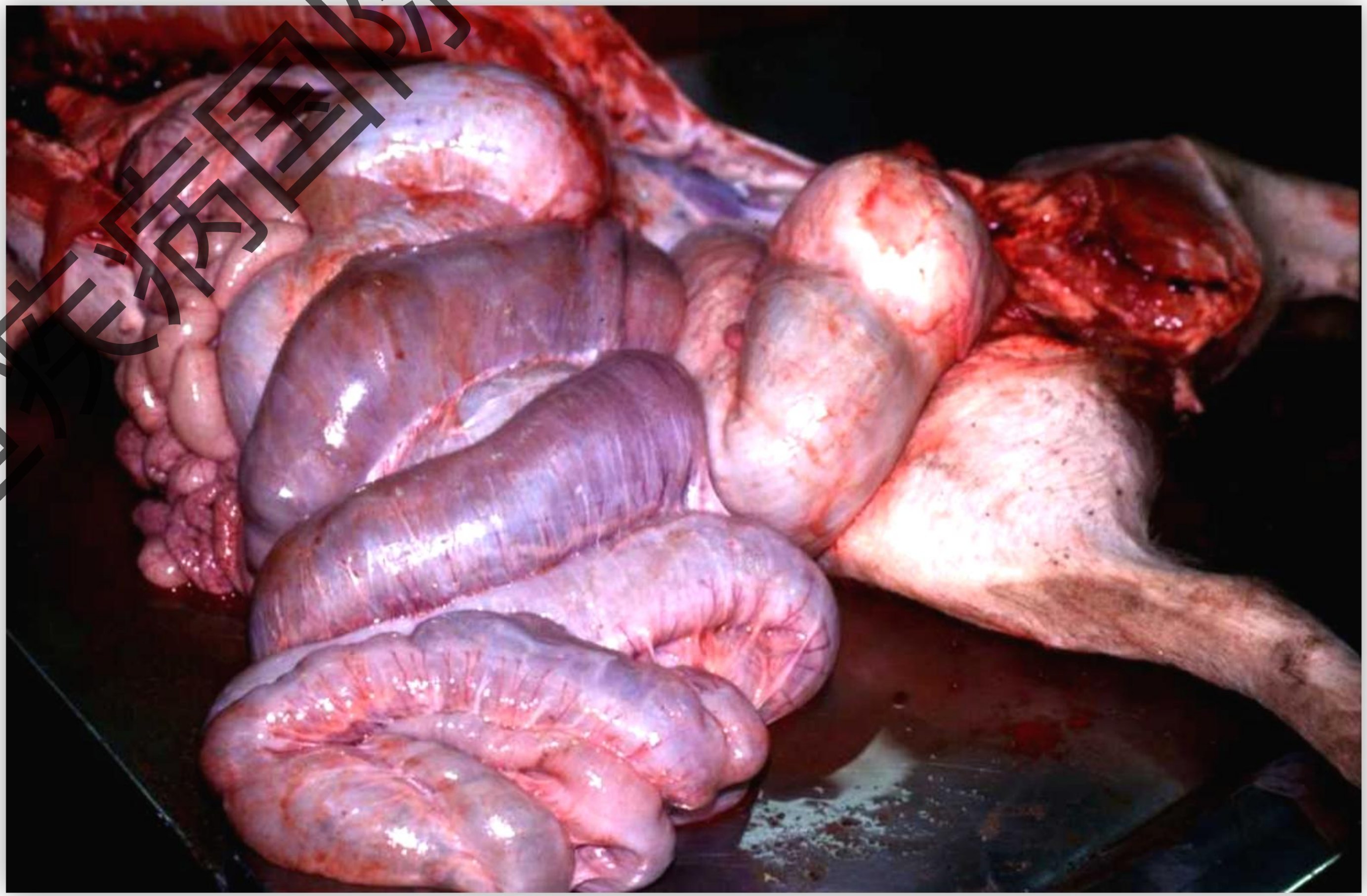
# 问题3.  这张图最能体现哪种疾病情况？

A. Complicated PE
复杂性增生性肠炎

B. Megacolon
巨结肠

C. Salmonellosis
沙门氏菌病

D. Swine dysentery
猪痢疾



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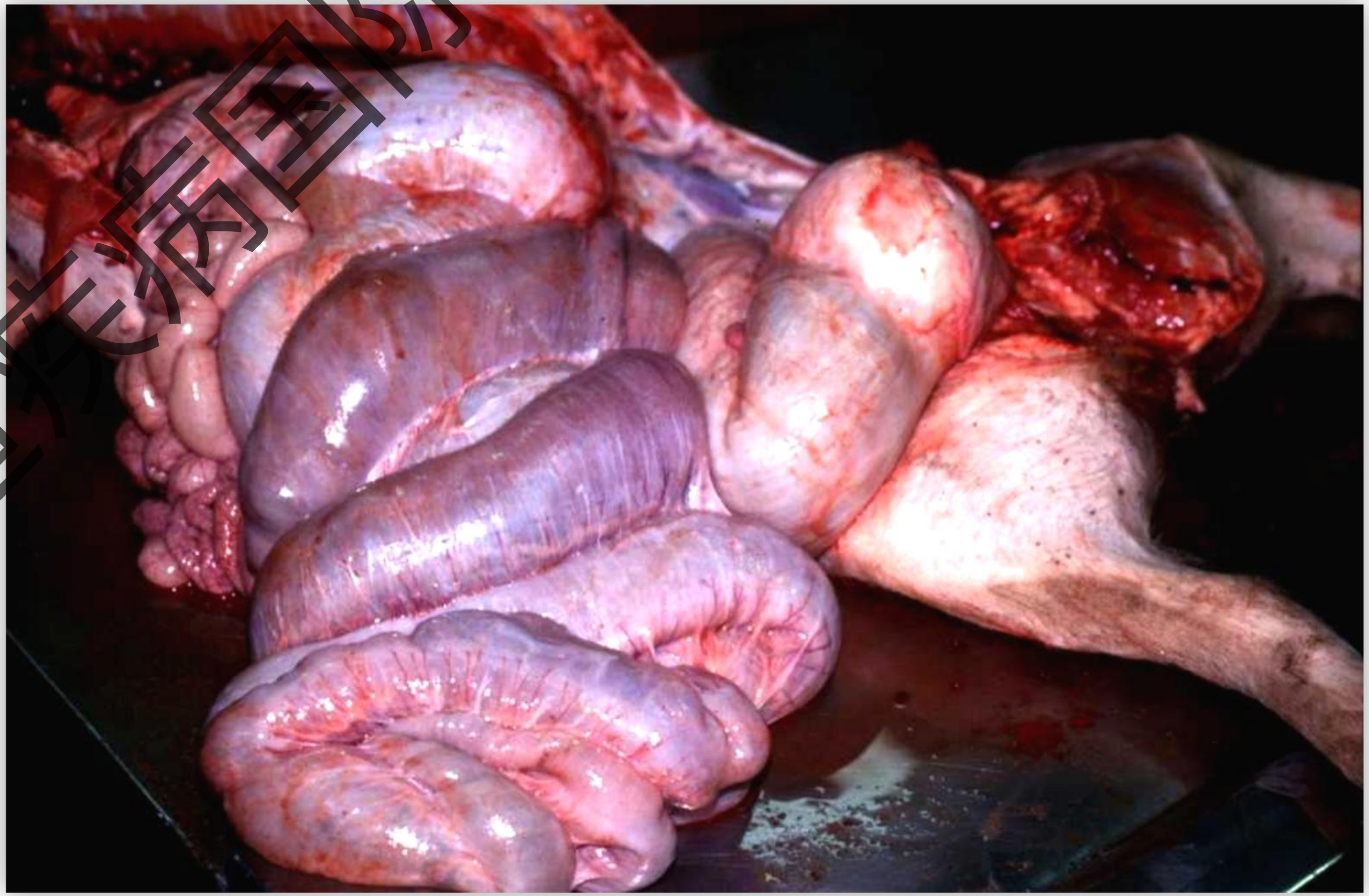

Q4. This pig's intestinal mucosa is thickened but PCR and IHC are negative for Lawsonia.

问题4. 这头猪的肠黏膜增厚，但聚合酶链式反应（PCR）和免疫组化（IHC）均显示劳森菌阴性。

Q4: Name the most likely causative agent

问题4. 说出最可能的致病病原体

A. *Mycobacterium avium*
   鸟分枝杆菌

B. *Mycobacterium bovis*
   牛分枝杆菌

C. Porcine circovirus type 1
   猪圆环病毒1型

D. Porcine circovirus type 2
   猪圆环病毒2型

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猪圆环病毒2型

Q5. Which fruit is associated with the histological diagnosis of PCV2 infection?

问题5. 哪种水果与猪圆环病毒2型感染的组织学诊断有关？

**A**

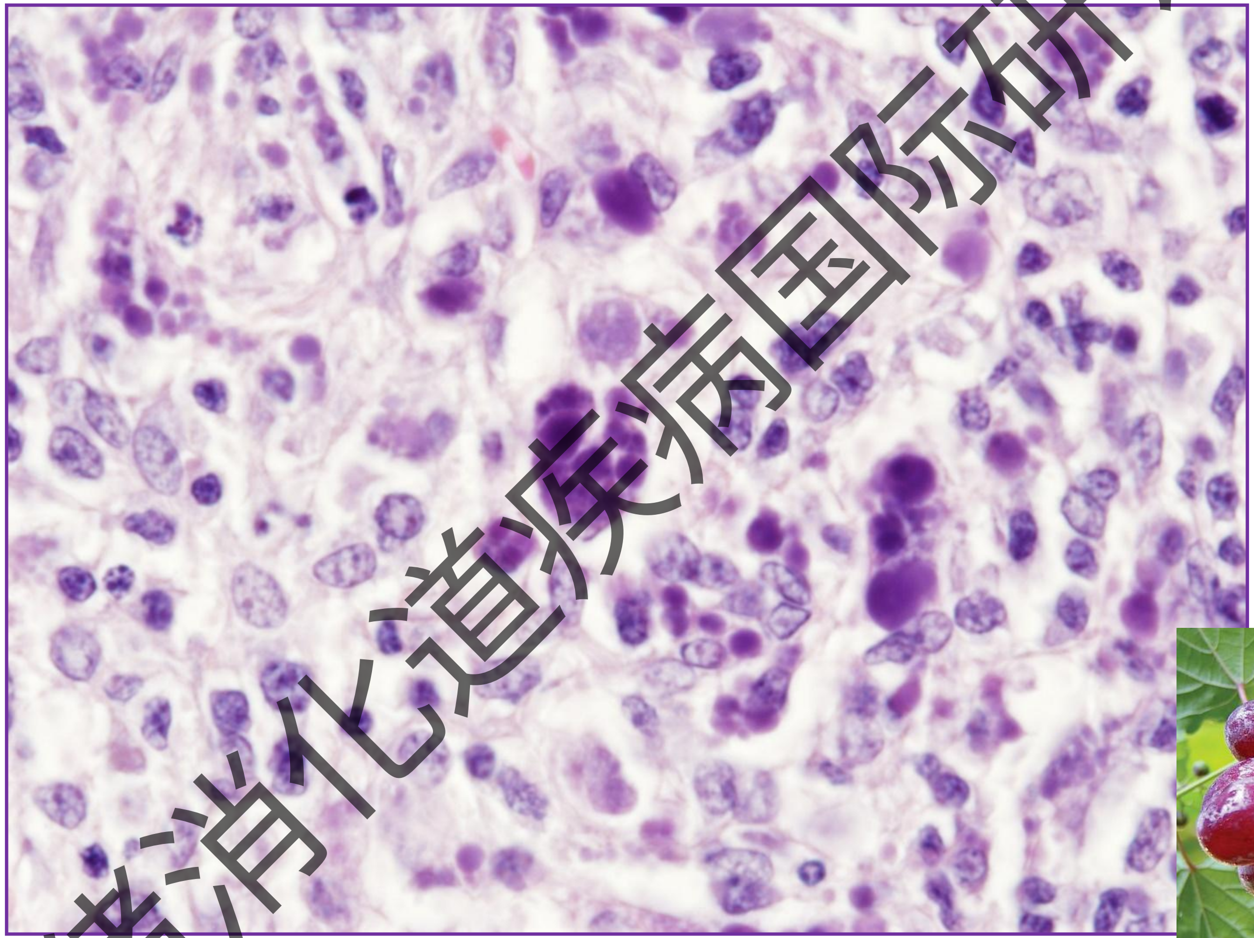
**D**

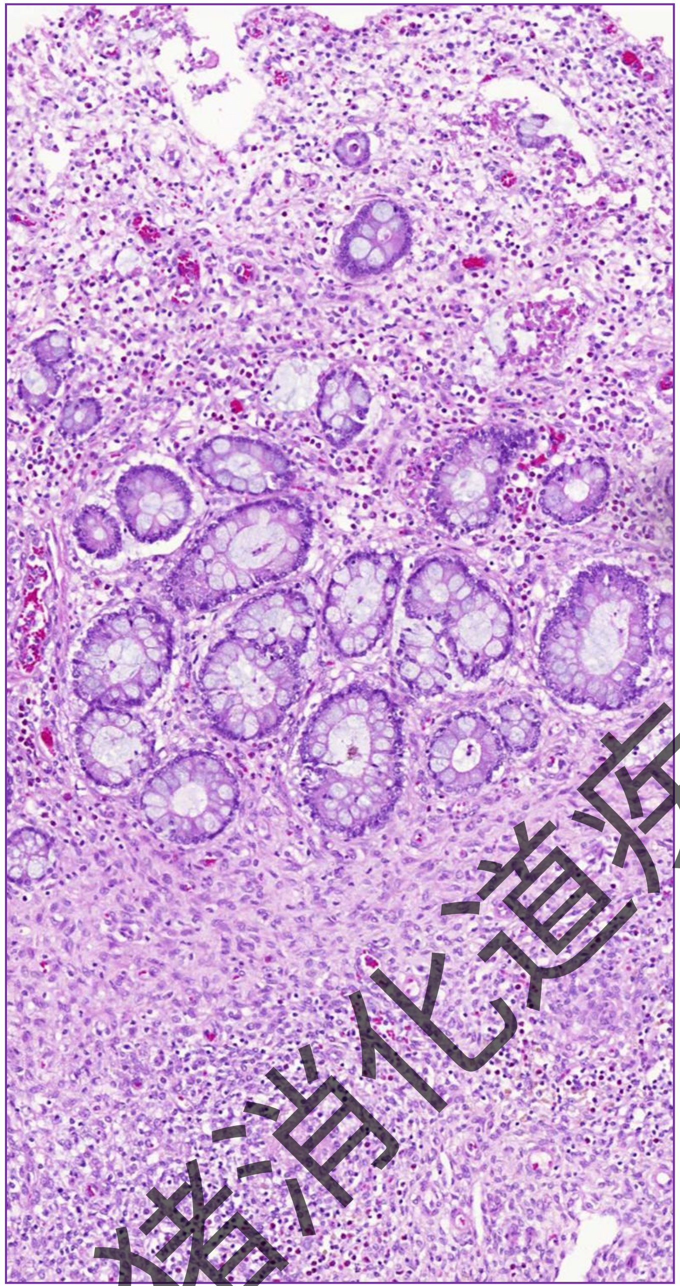
**B**

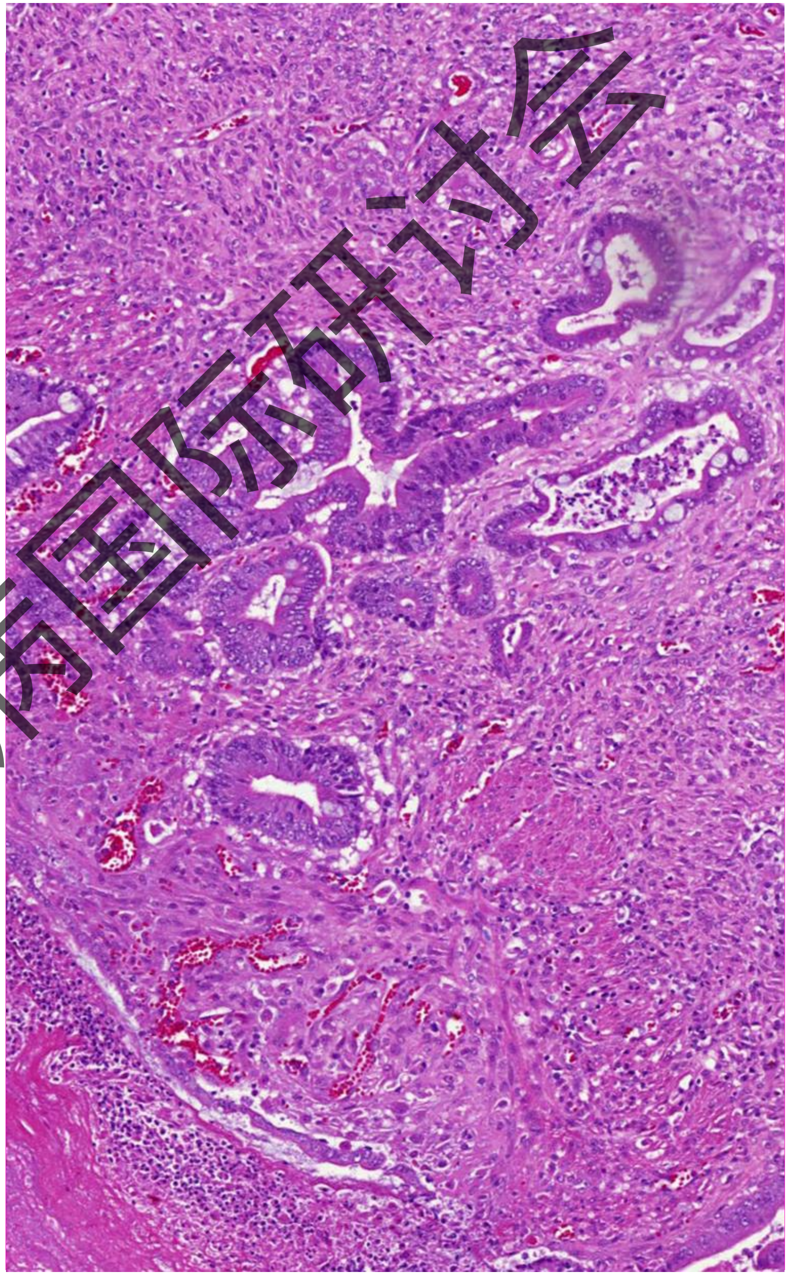
**C**

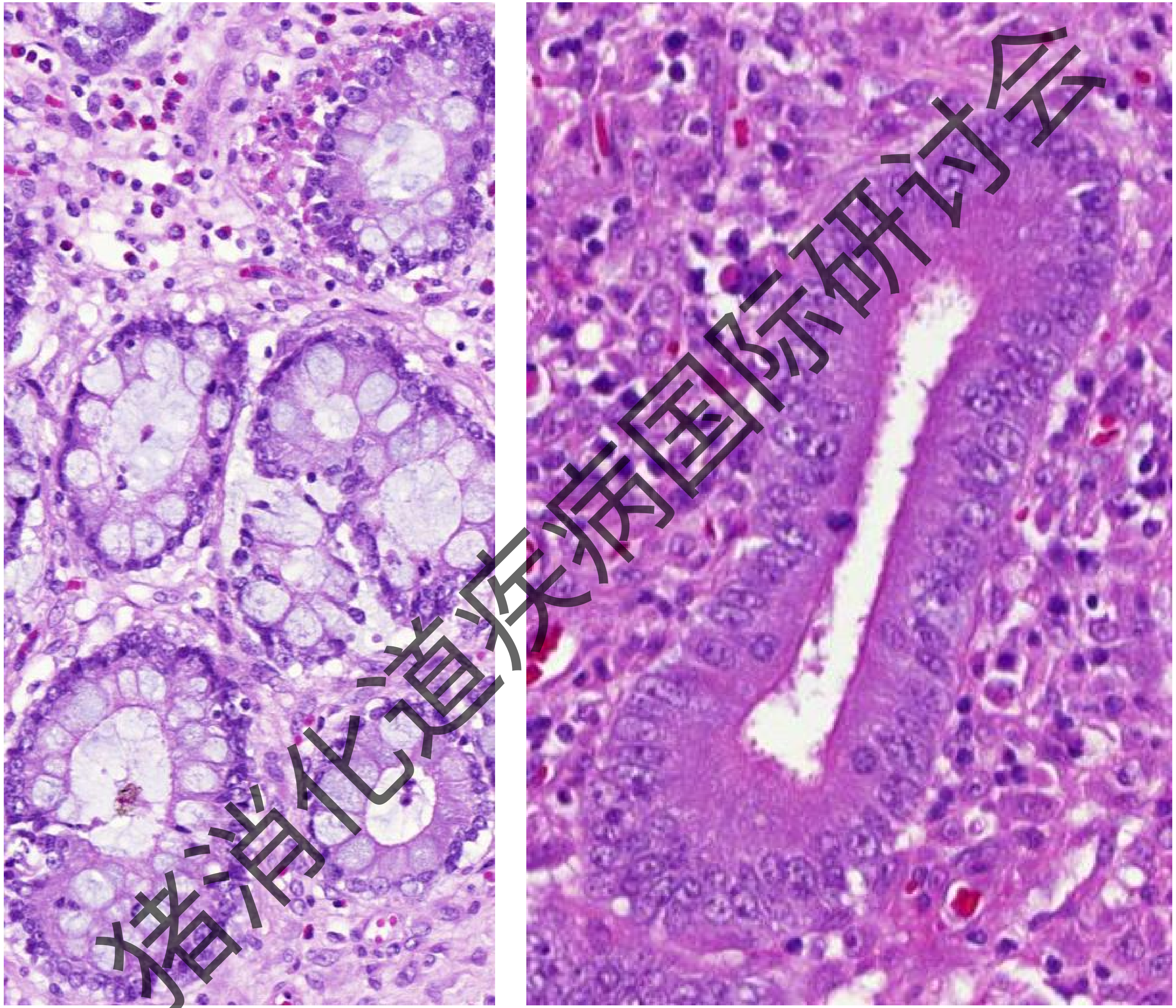
# Botryoid inclusions: bunch of grapes

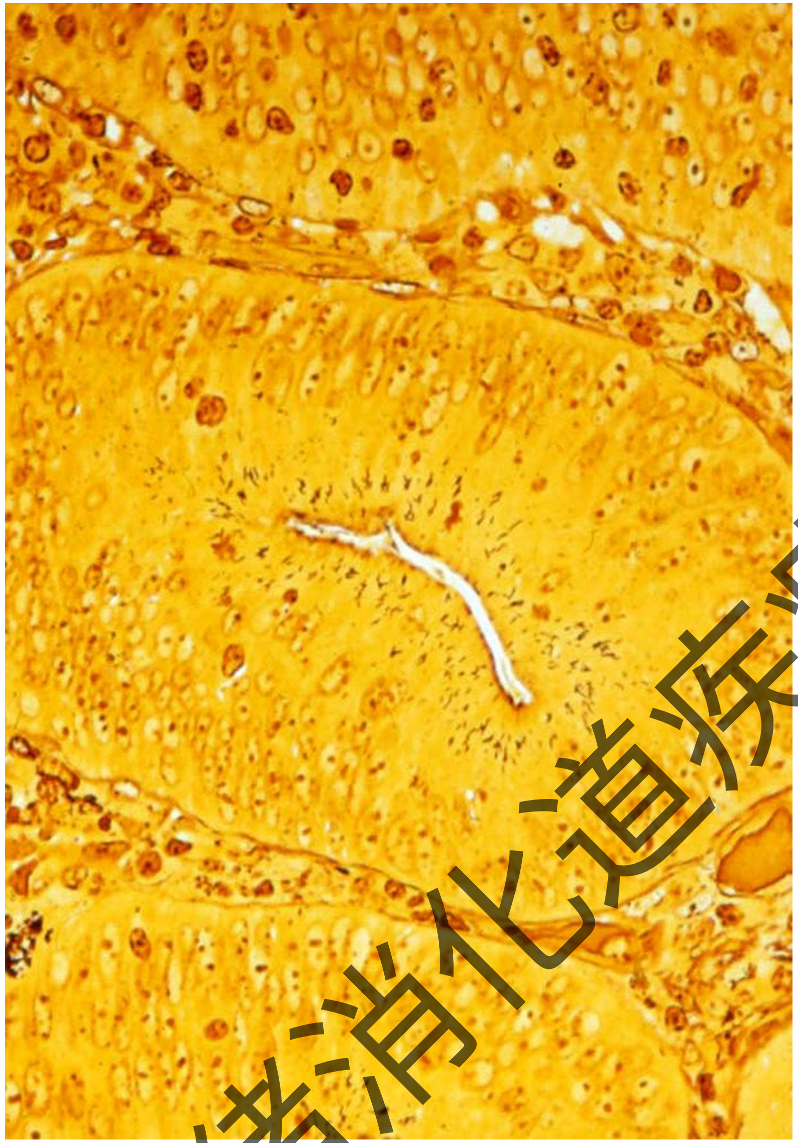
# 葡萄状包涵体：葡萄串











# Acute PPE: Differentials
# 急性增生性肠炎：鉴别

- Age of pig (young adults ~6 months)
  猪只日龄（青年猪-6月龄）

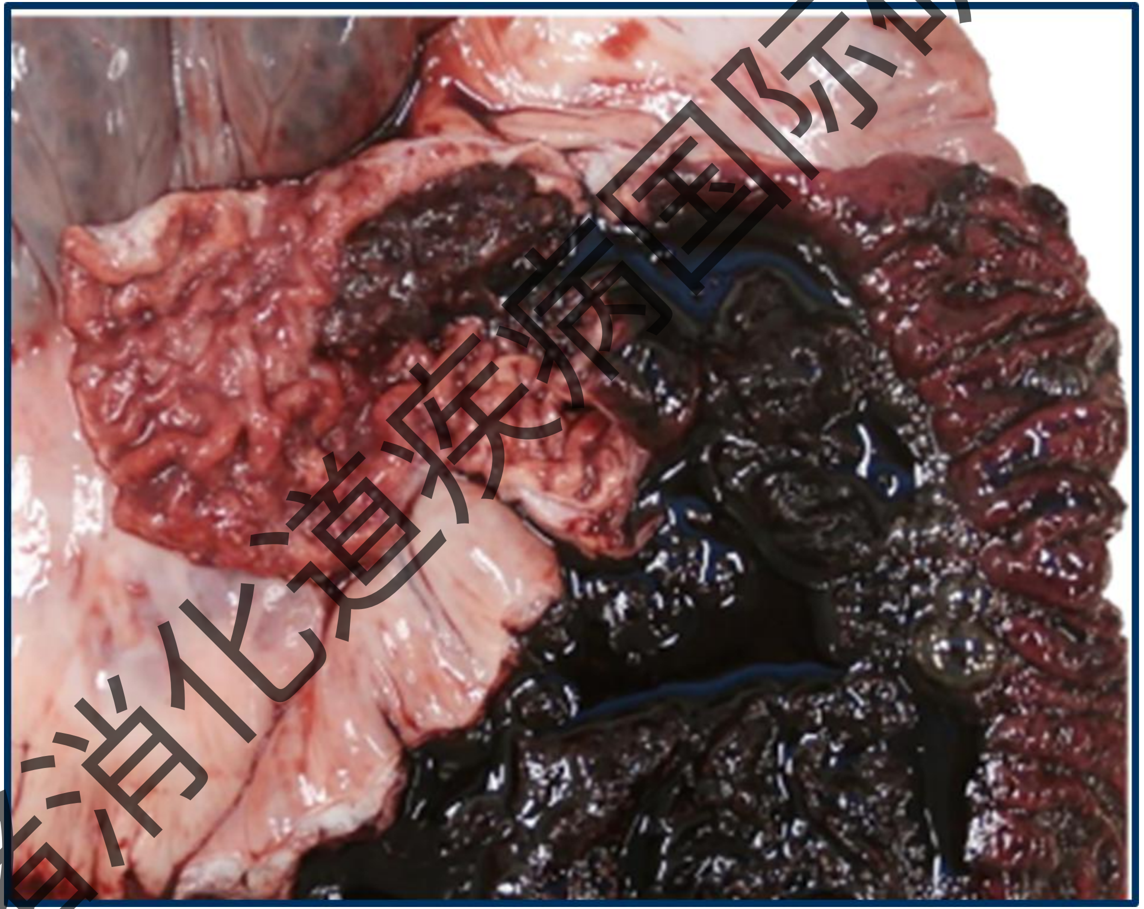
- Character of diarrhoea: Very haemorrhagic
  腹泻特征：大量出血

- Region of GI tract affected: Ileum mainly
  胃肠道感染区域：主要为回肠

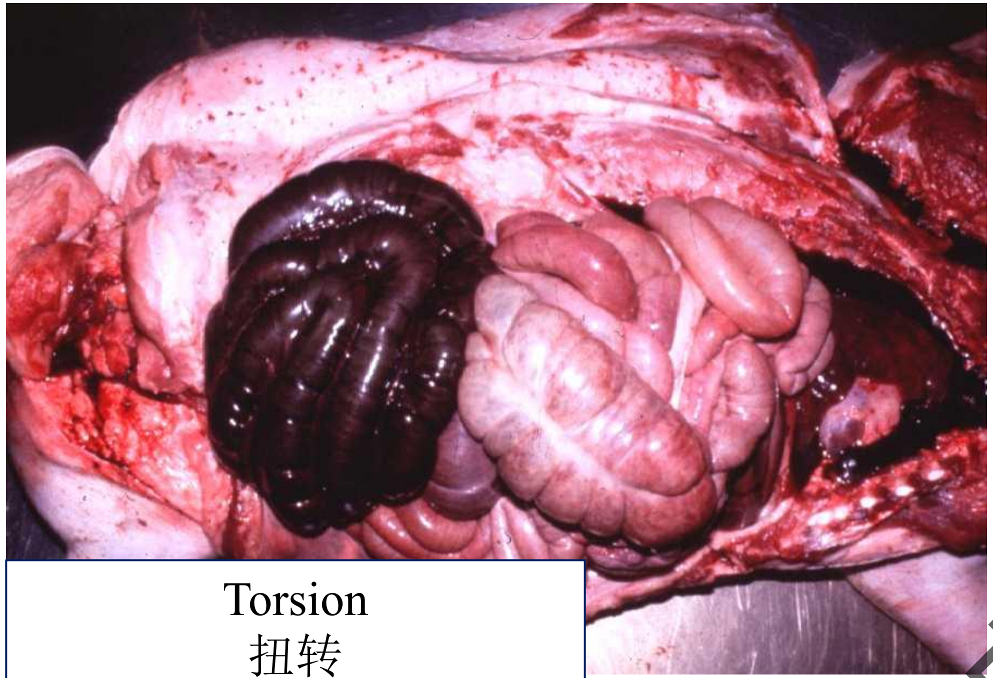
- Involvement of other organ systems – no
  其他器官系统的参与-不参与

# Q6. Name **ONE** differential for acute PE

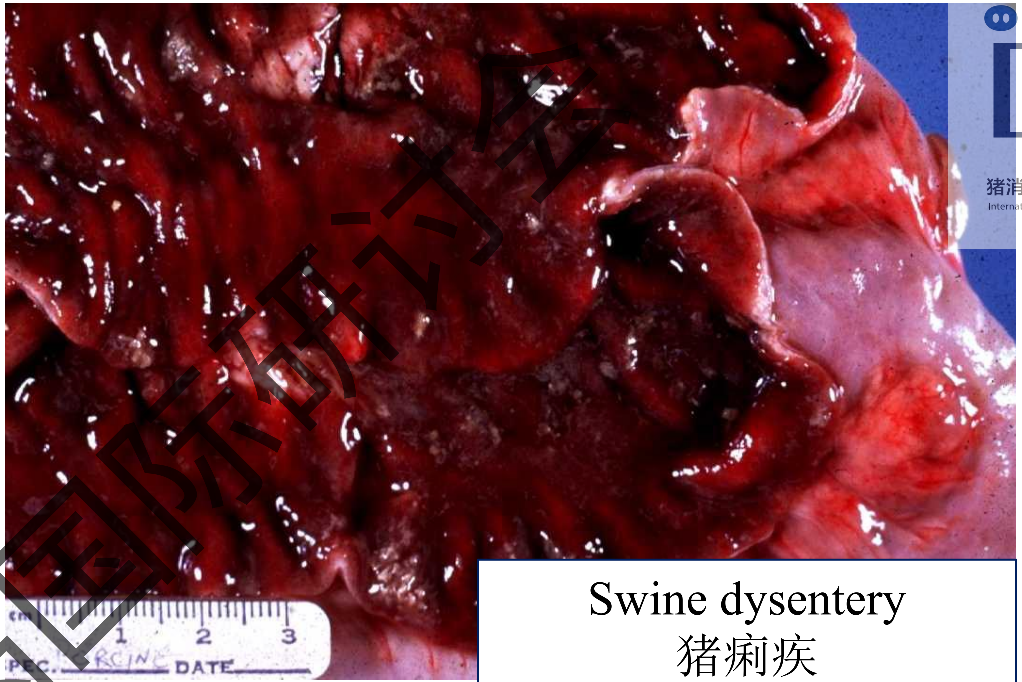
# 问题6. 说出急性增生性肠炎的一种鉴别方法



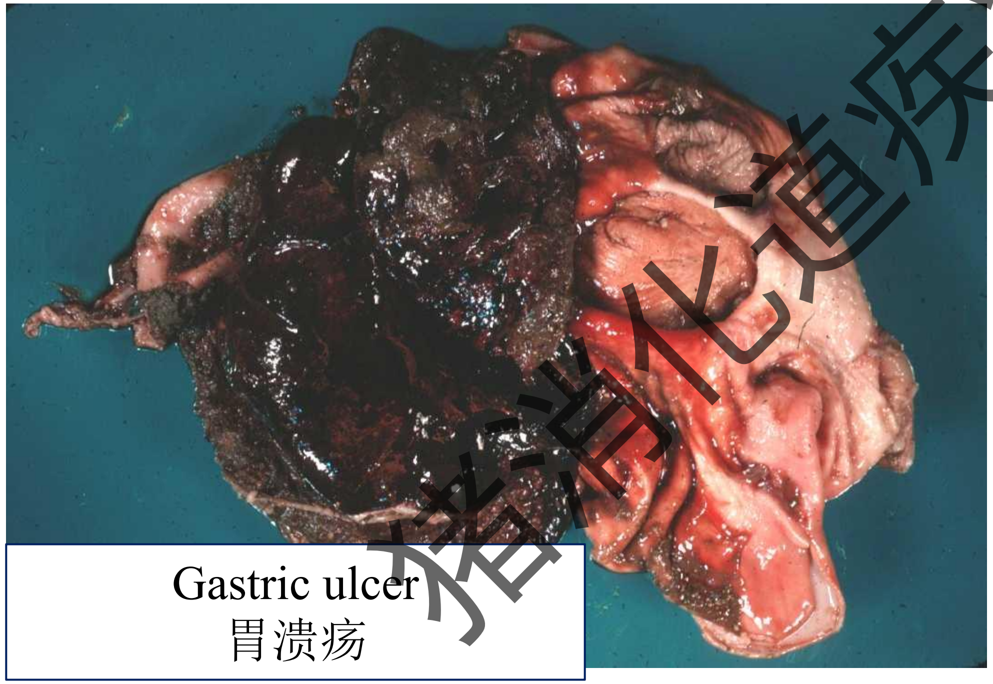
Source: Morrison/Campillo et al 2021
来源：Morrison/Campillo等，2021



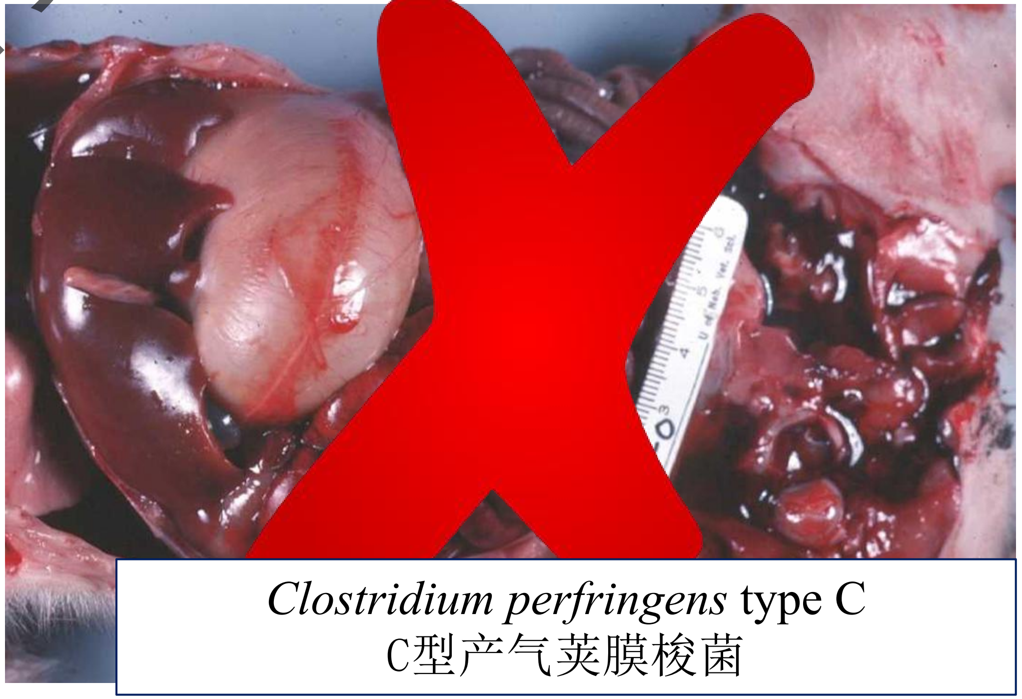
Torsion
扭转



Swine dysentery
猪痢疾



Gastric ulcer
胃溃疡



*Clostridium perfringens* type C
C型产气荚膜梭菌

# Haemorrhagic bowel syndrome
# 肠出血性综合征

- Rapidly growing pigs around 4-6 months of age
  4-6月龄快速生长的猪只
- Sudden death, no diarrhoea but thin-walled small intestine filled with blood (clotted/unclotted) and large intestine contents tarry
  猝死，无腹泻，但小肠充血（凝血/未凝血）且肠壁变薄，大肠内容物呈柏油状
- Cause unknown
  病因未知
- Potential RFs – vigorous exercise; handling; fighting, irregular feeding, highly fermentable feed, especially liquid
  潜在风险因素-剧烈运动、人工操作、打斗、不规律采食、高度发酵饲料，尤其是液态料
- Lesions similar to torsion but no torsion apparent (partial torsion?)
  类似扭转但无明显扭转的病变（部分扭转？）
- Diagnosis of exclusion
  排除诊断

Thank you

谢谢