

# PORCINE INTESTINAL PATHOLOGY

Fabio Del Piero



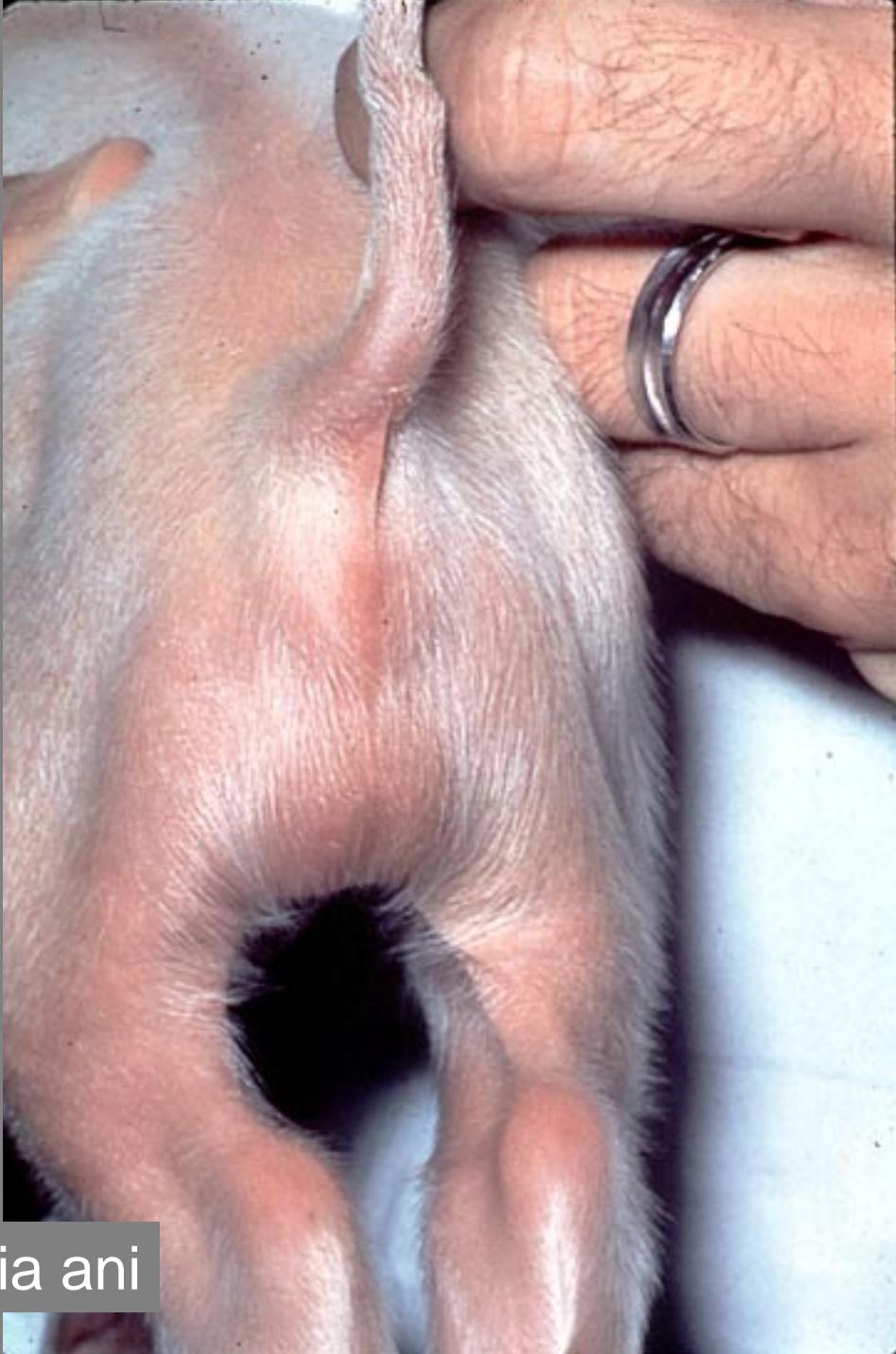
# Contributors

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- John M. King – Cornell University
- Plum Island foreign animal disease diagnostic and research station

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# Porcine ages and stages

- Suckling: < 2-3 weeks
- Weaner: after 3 weeks
- Nursery:  $\approx$ 1-2 months
- Growers/Finishers: 3-6 months
- Breeding/Adult: > 6 months



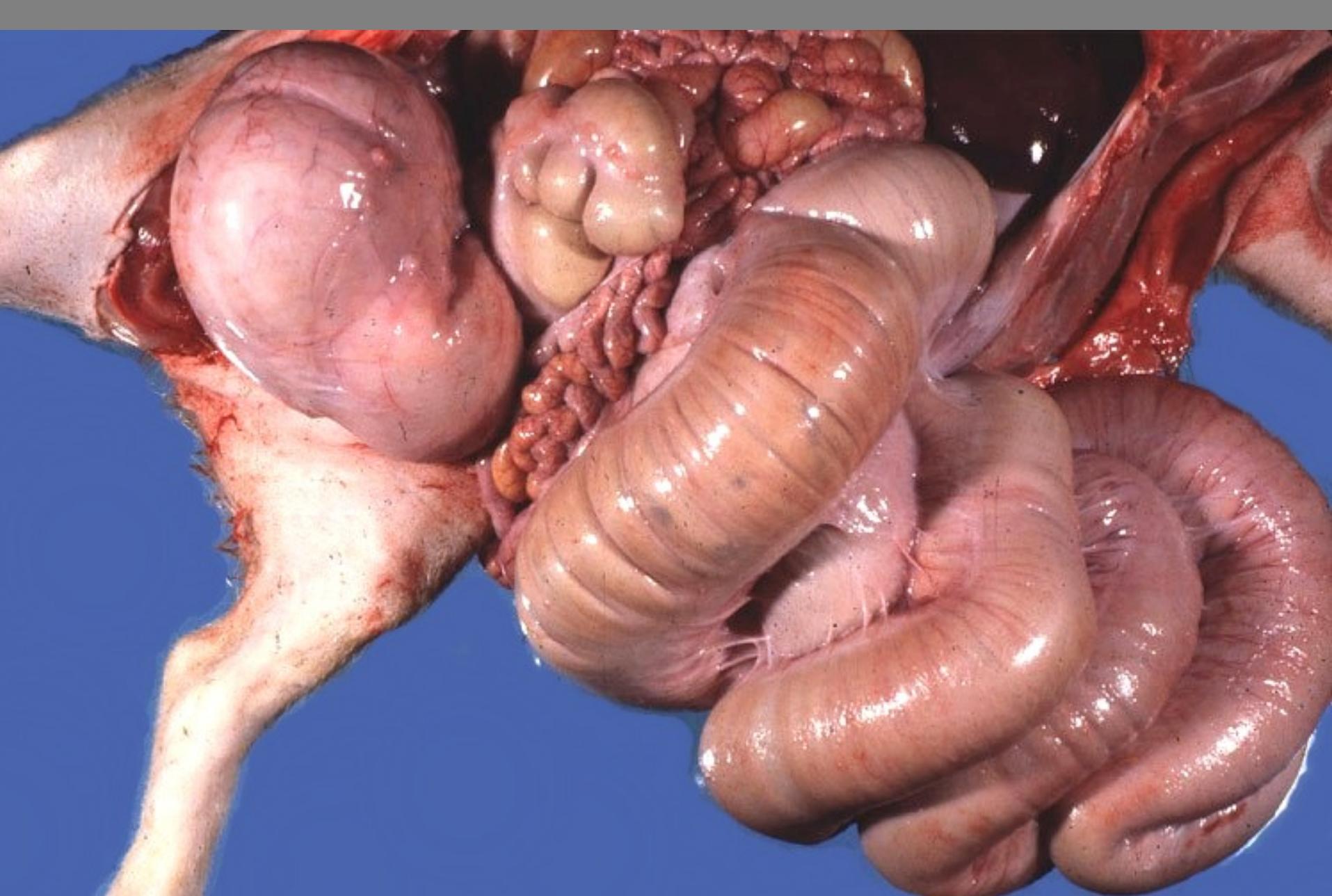
Piglet – atresia ani



Piglet – atresia ani



Piglet – atresia ani



Piglet – atresia coli



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Veterinary Medicine

Piglet – atresia coli



trauma



Piglets – palatoschysis



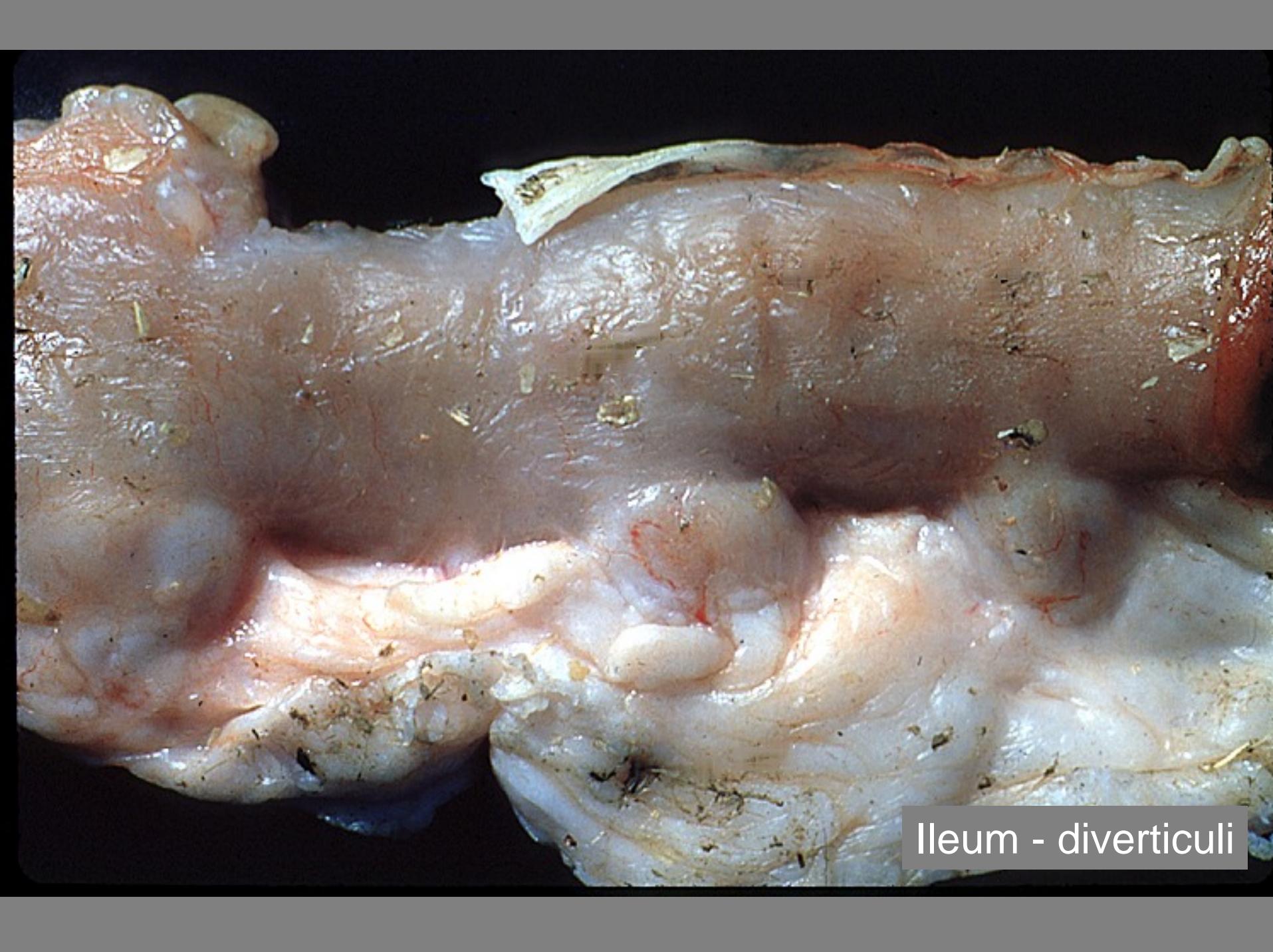
Tongue – epitheliogenesis imperfecta



Tongue – swine vesicular disease

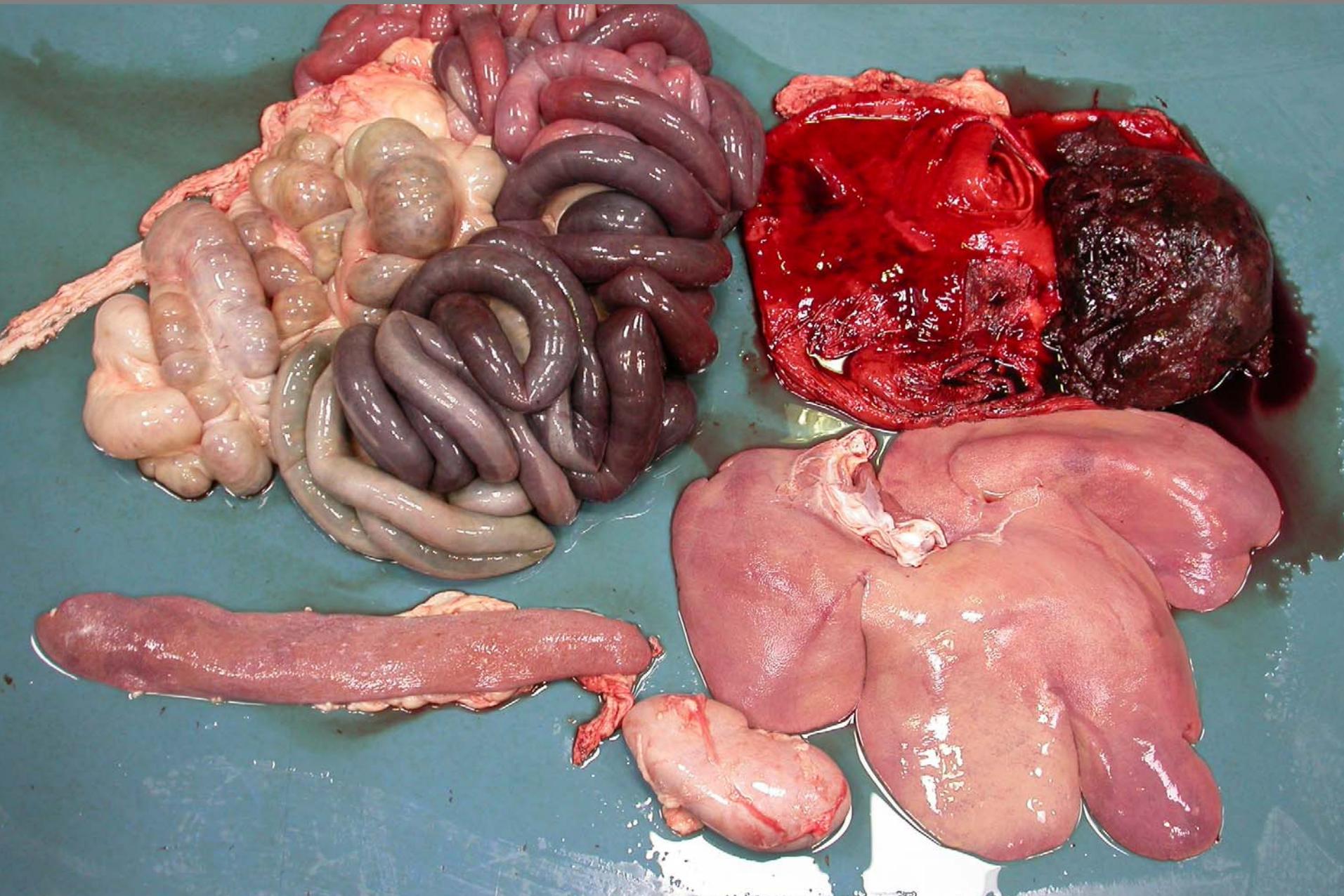
Tongue – alveolar bone – *Fusobacterium necrophorum*



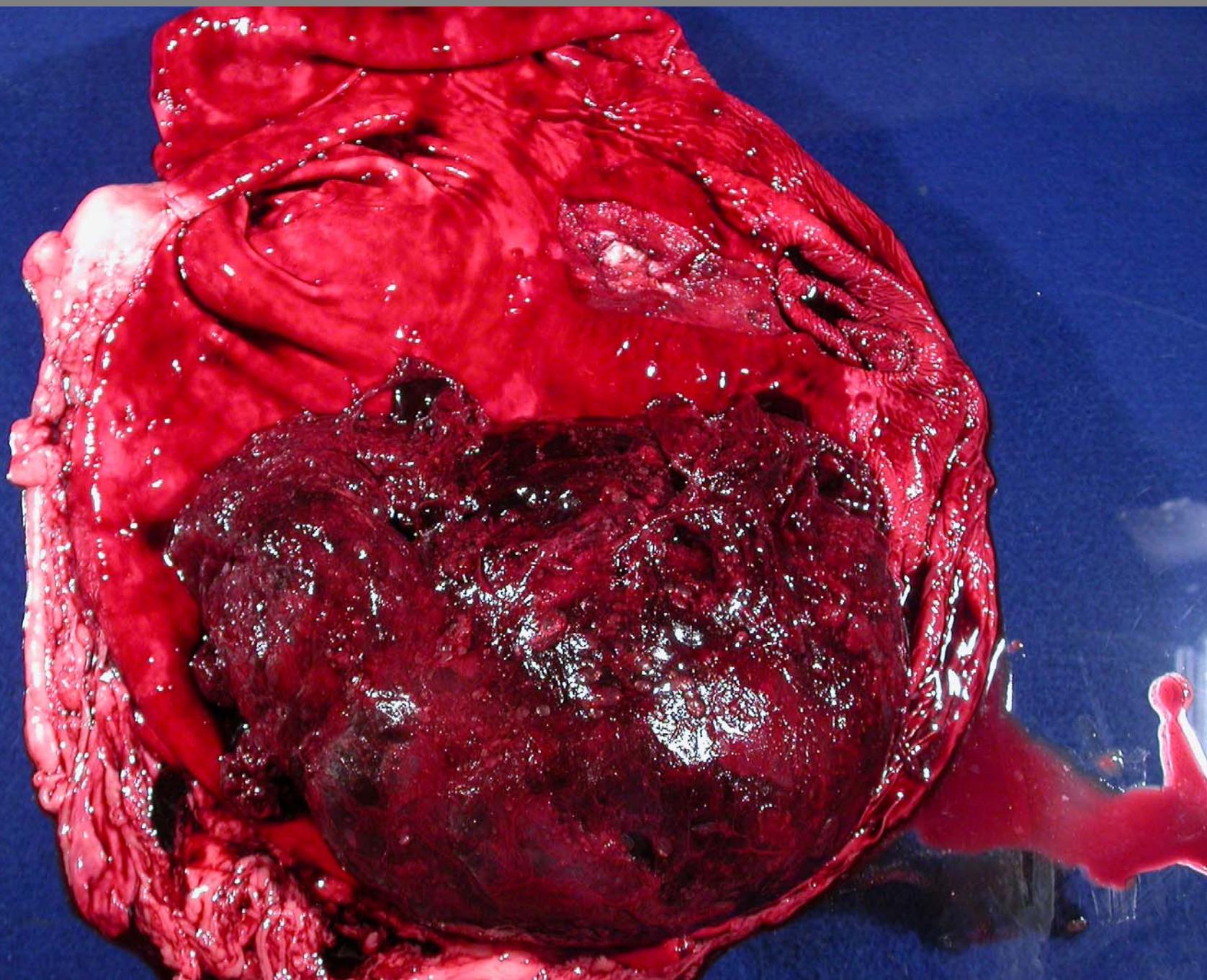


Ileum - diverticuli

Stomach – gastroesophageal ulcer – exsanguination  
and anemic pallor

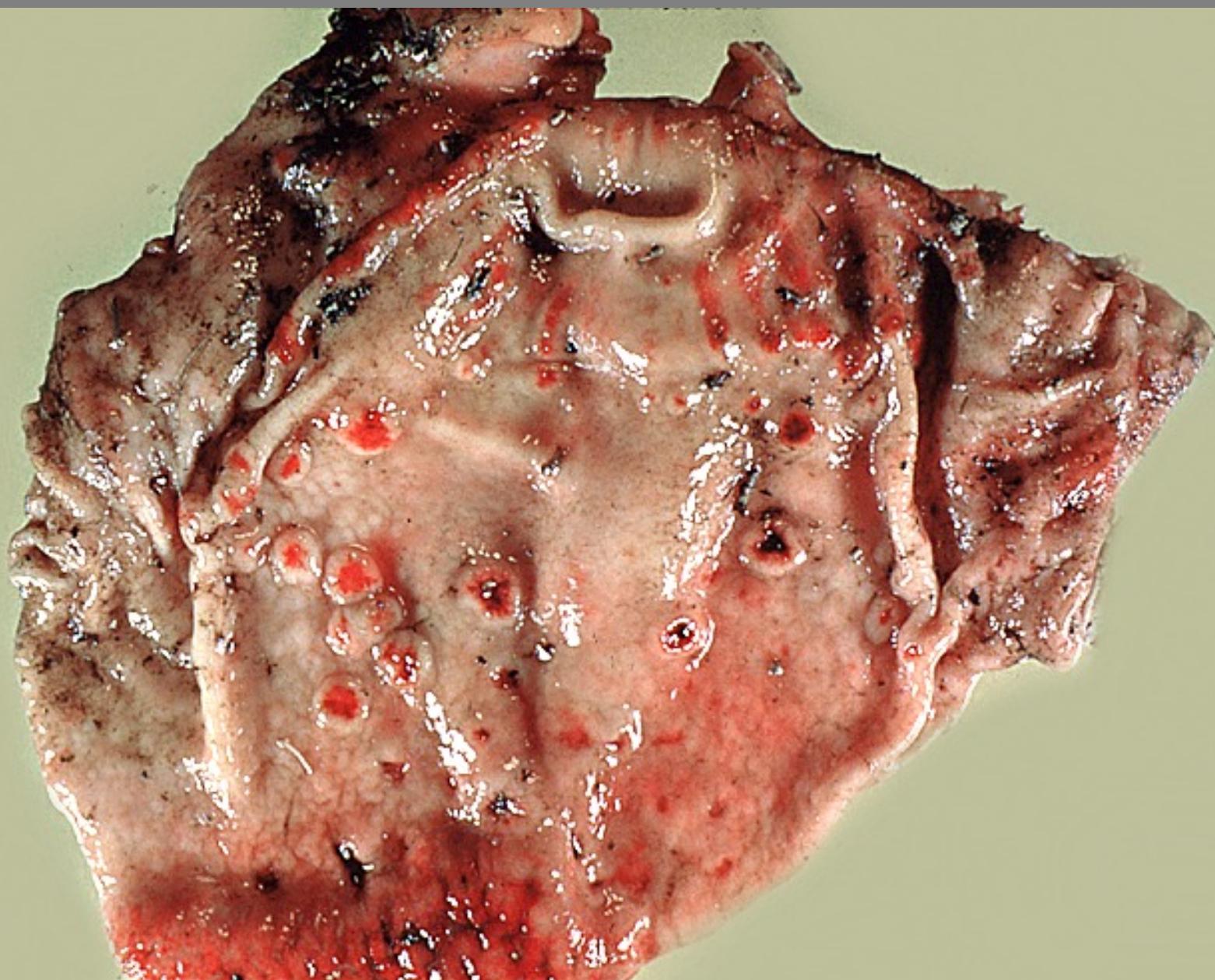


Stomach – gastroesophageal ulcer – exsanguination – intragastric blood clot

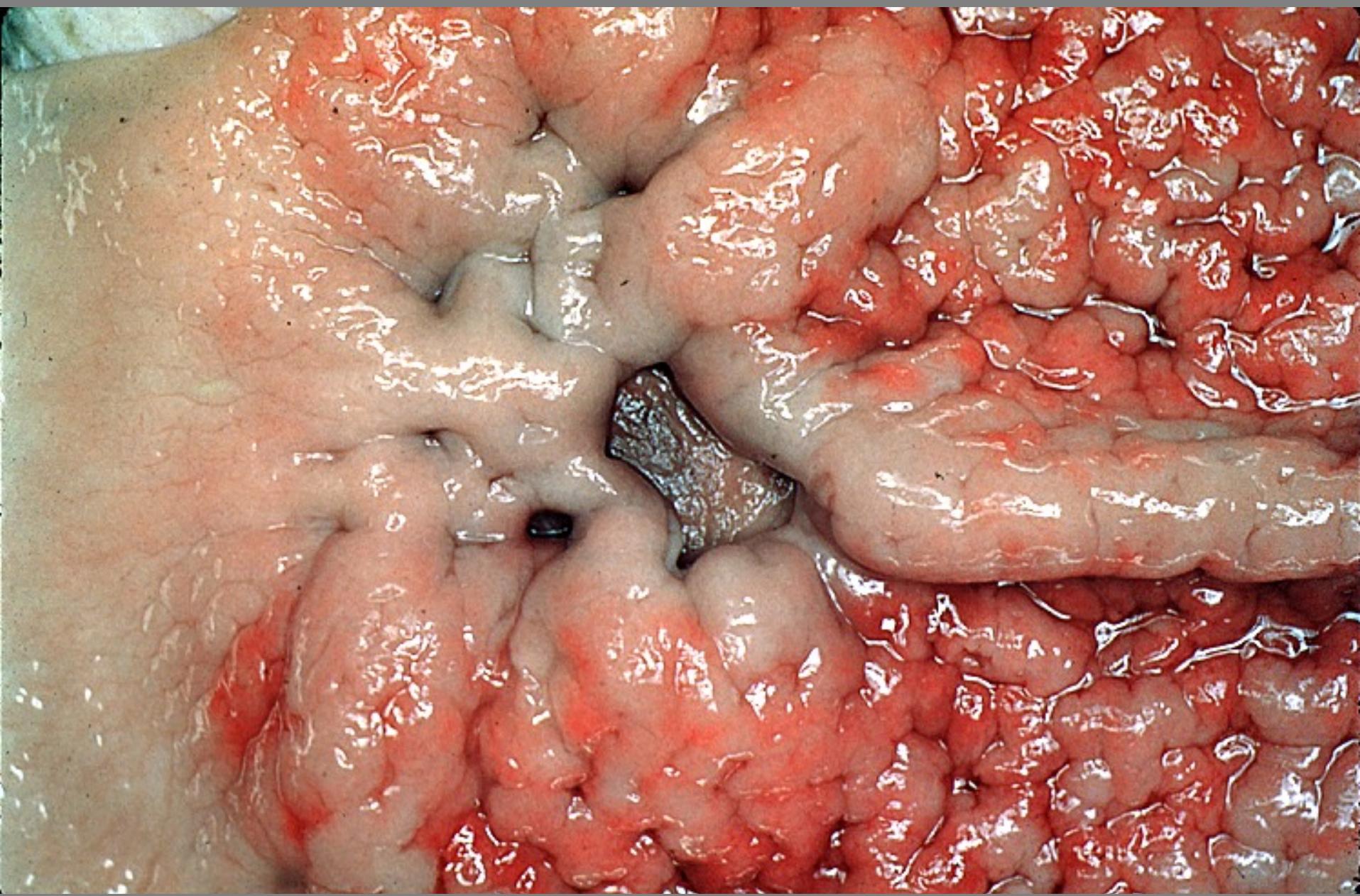


Stomach – gastroesophageal ulcer – exsanguination  
and anemic pallor

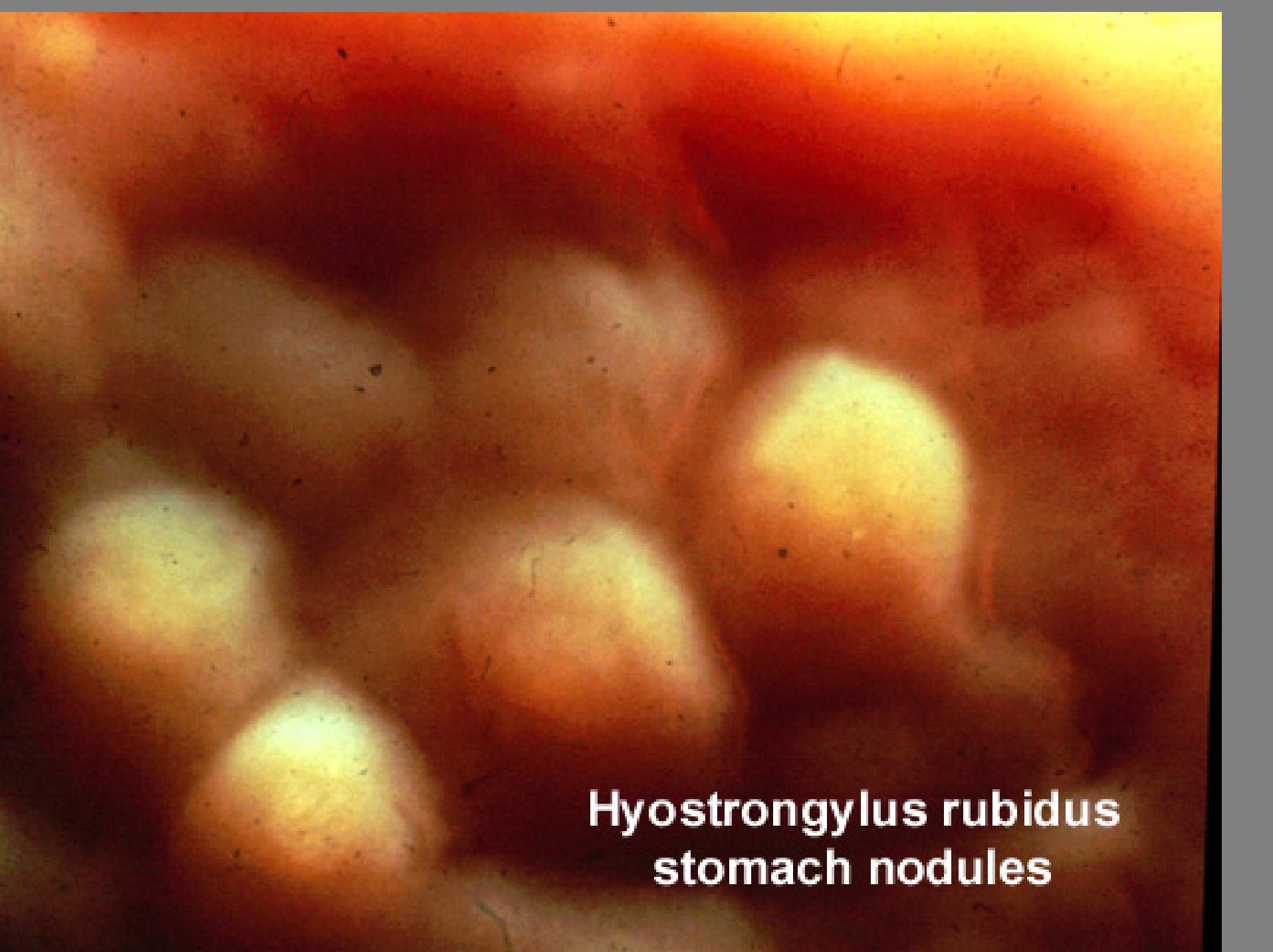




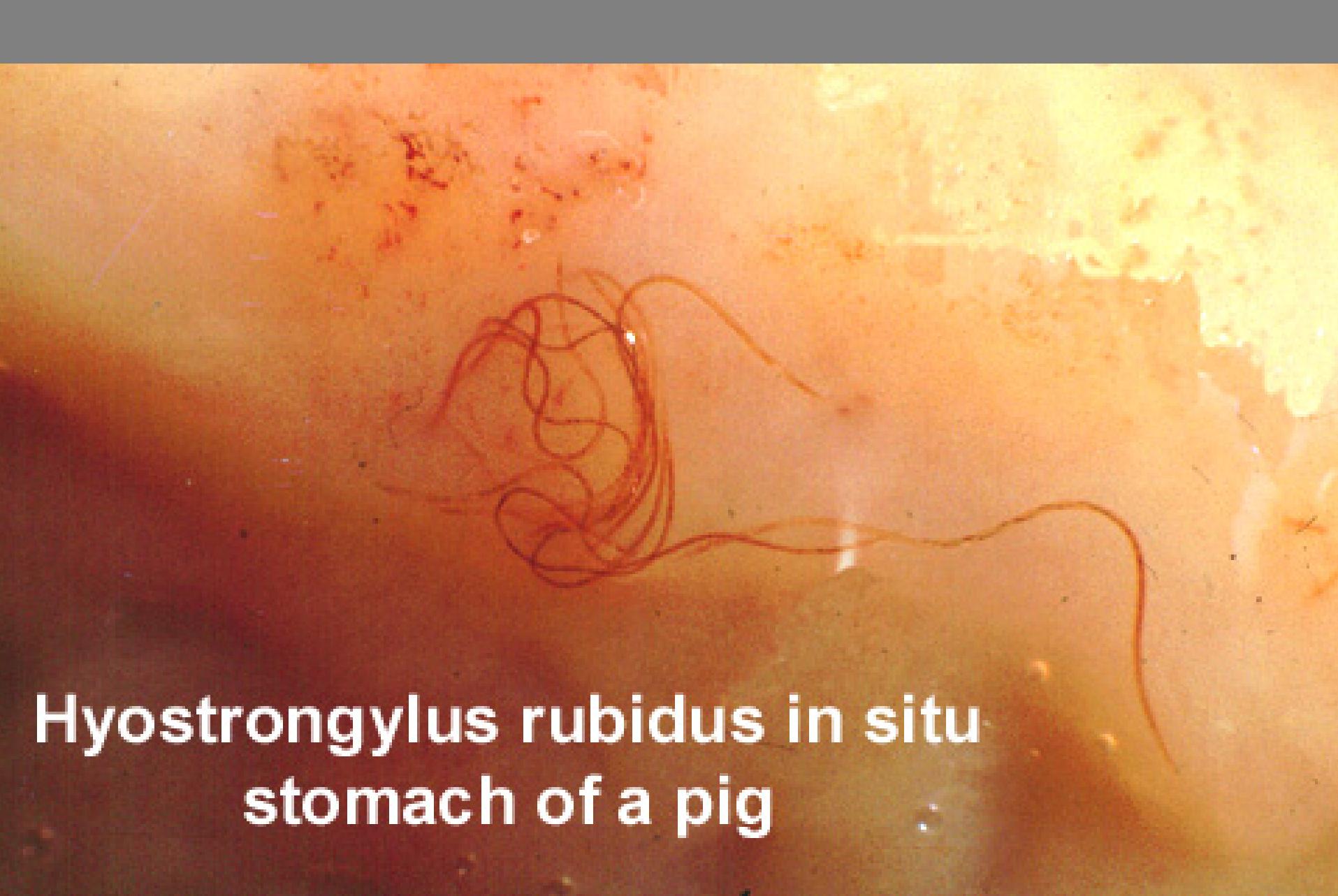
Stomach – ulcerative gastritis – *Hyostrongylus rubidus*



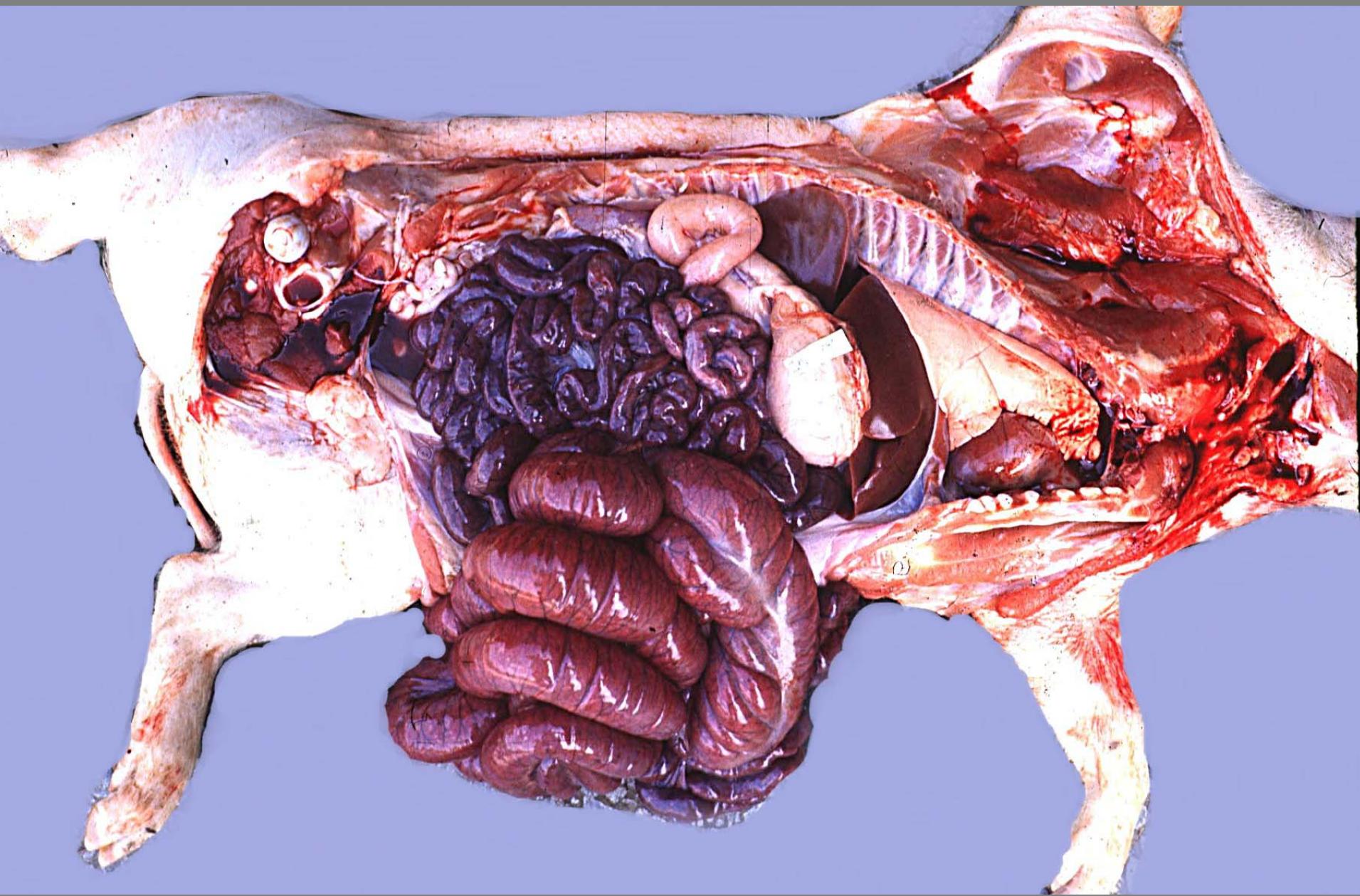
Stomach – ulcerative gastritis – *Hyostrongylus rubidus*



***Hyostrongylus rubidus***  
**stomach nodules**



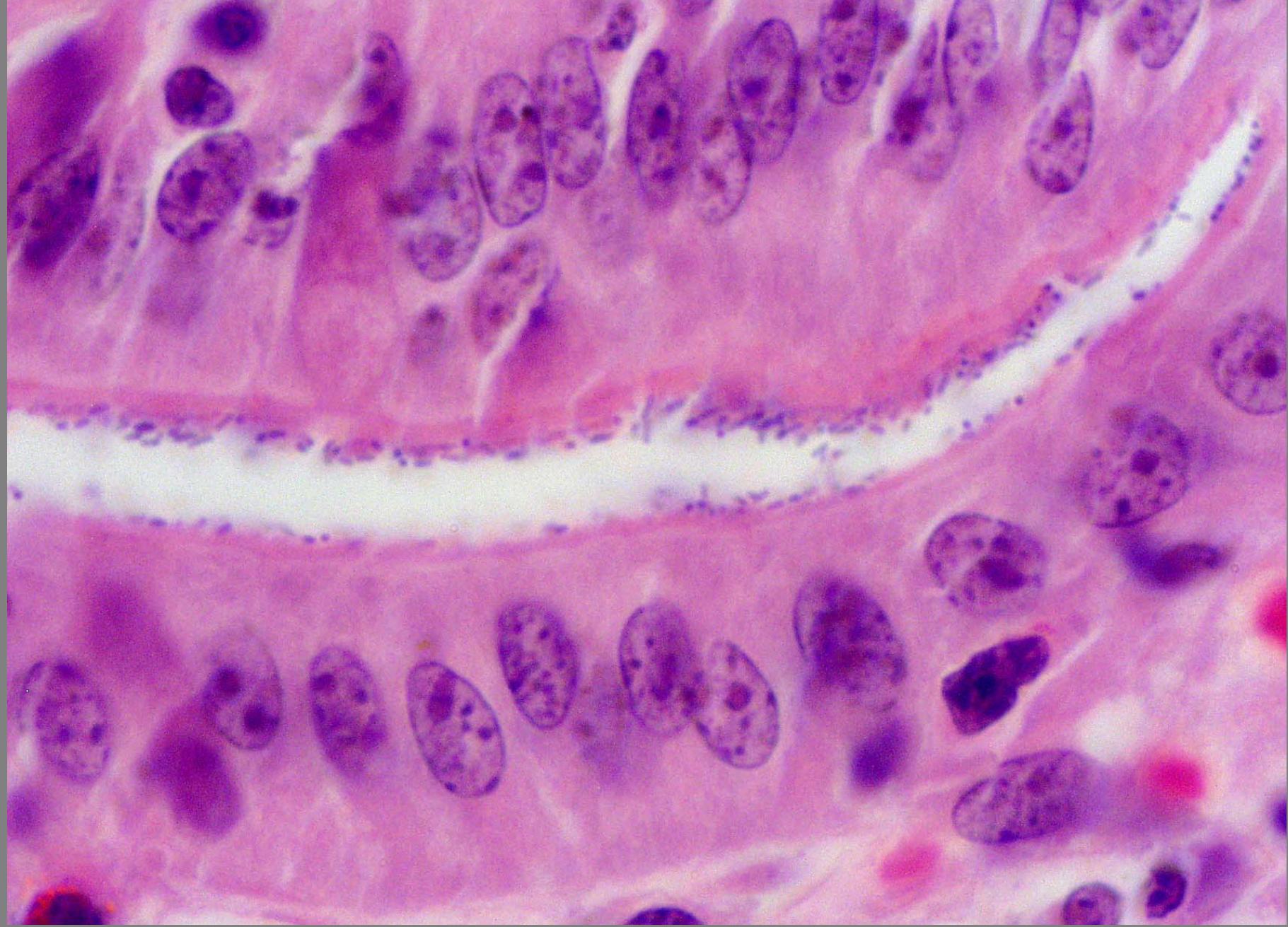
***Hyostrongylus rubidus* in situ  
stomach of a pig**



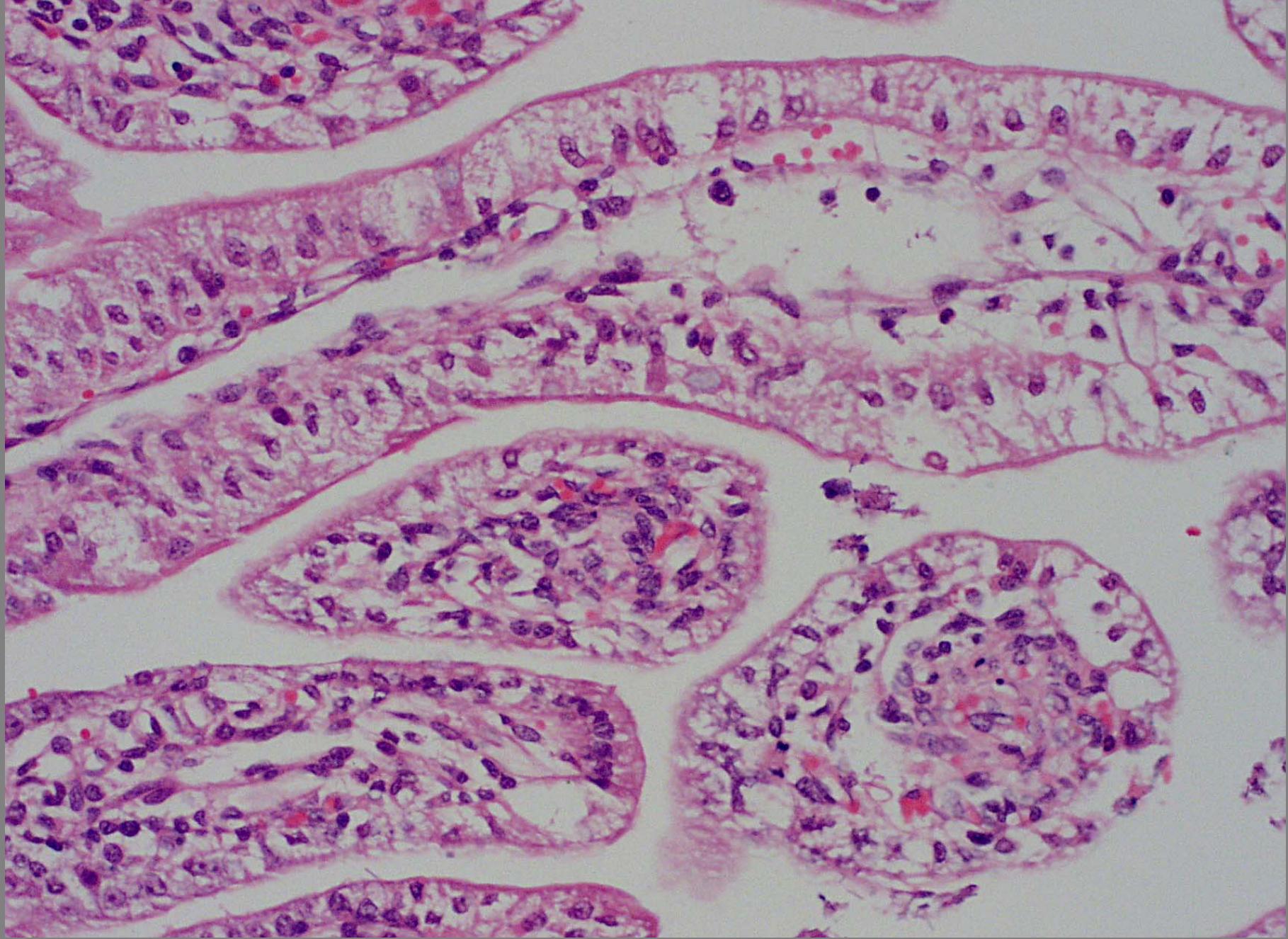
Intestine – volvolus with ischemic hemorrhagic necrosis



Intestine – catarrhal enteritis – various etiologies – *Escherichia coli* in this case



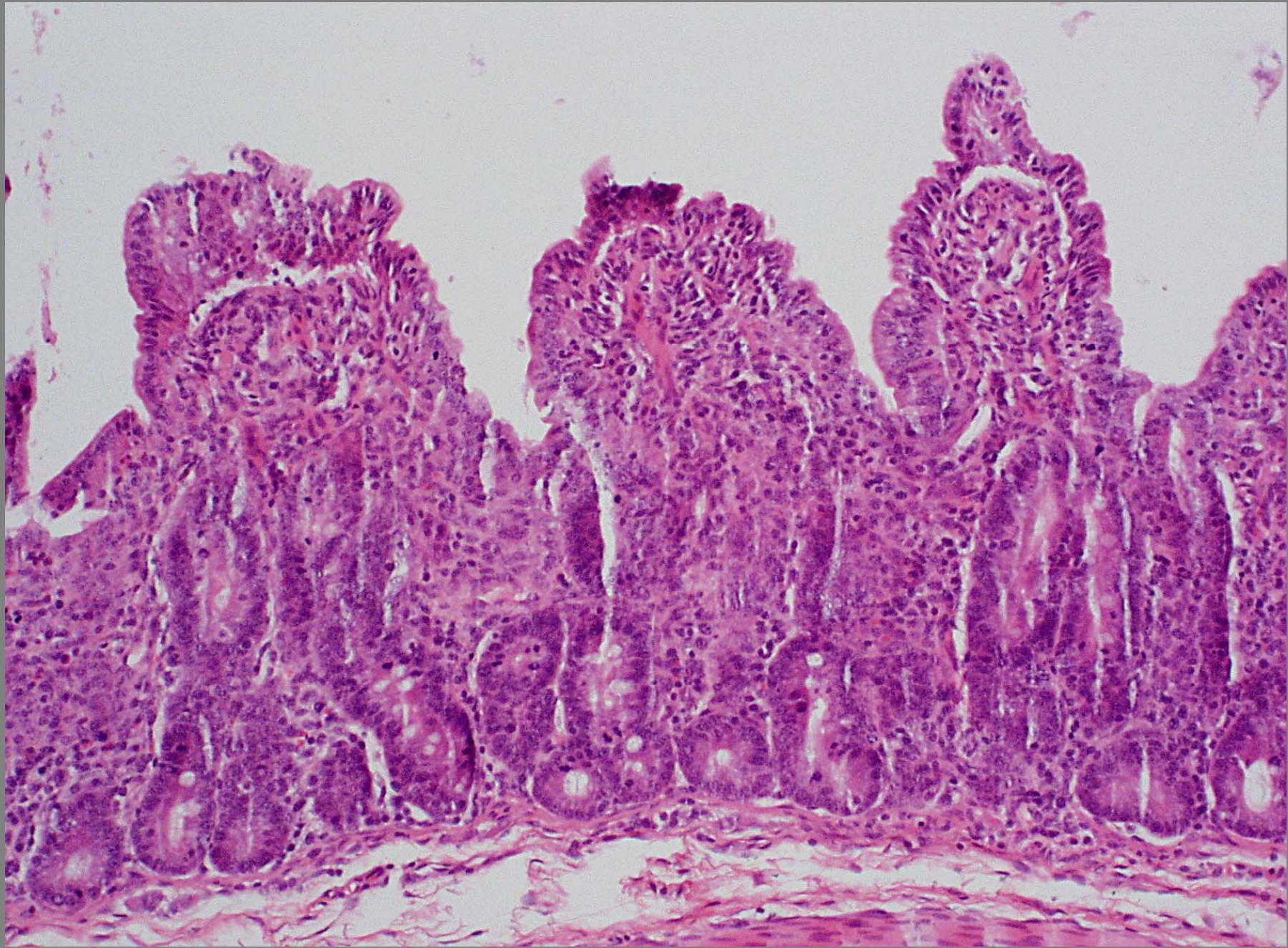
Intestine – *Escherichia coli*



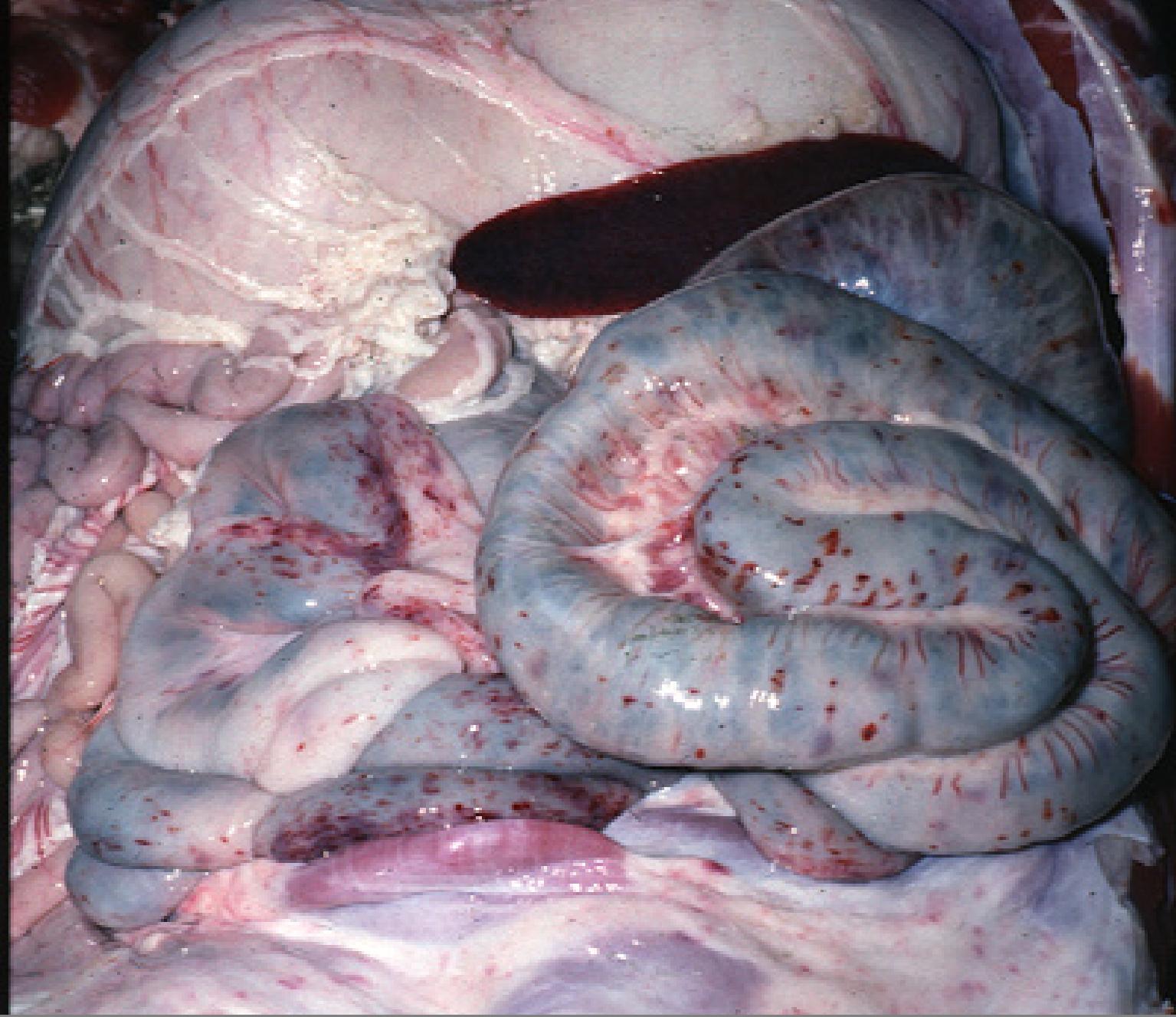
Small intestine – apical vacuolar enteropathy - rotavirus



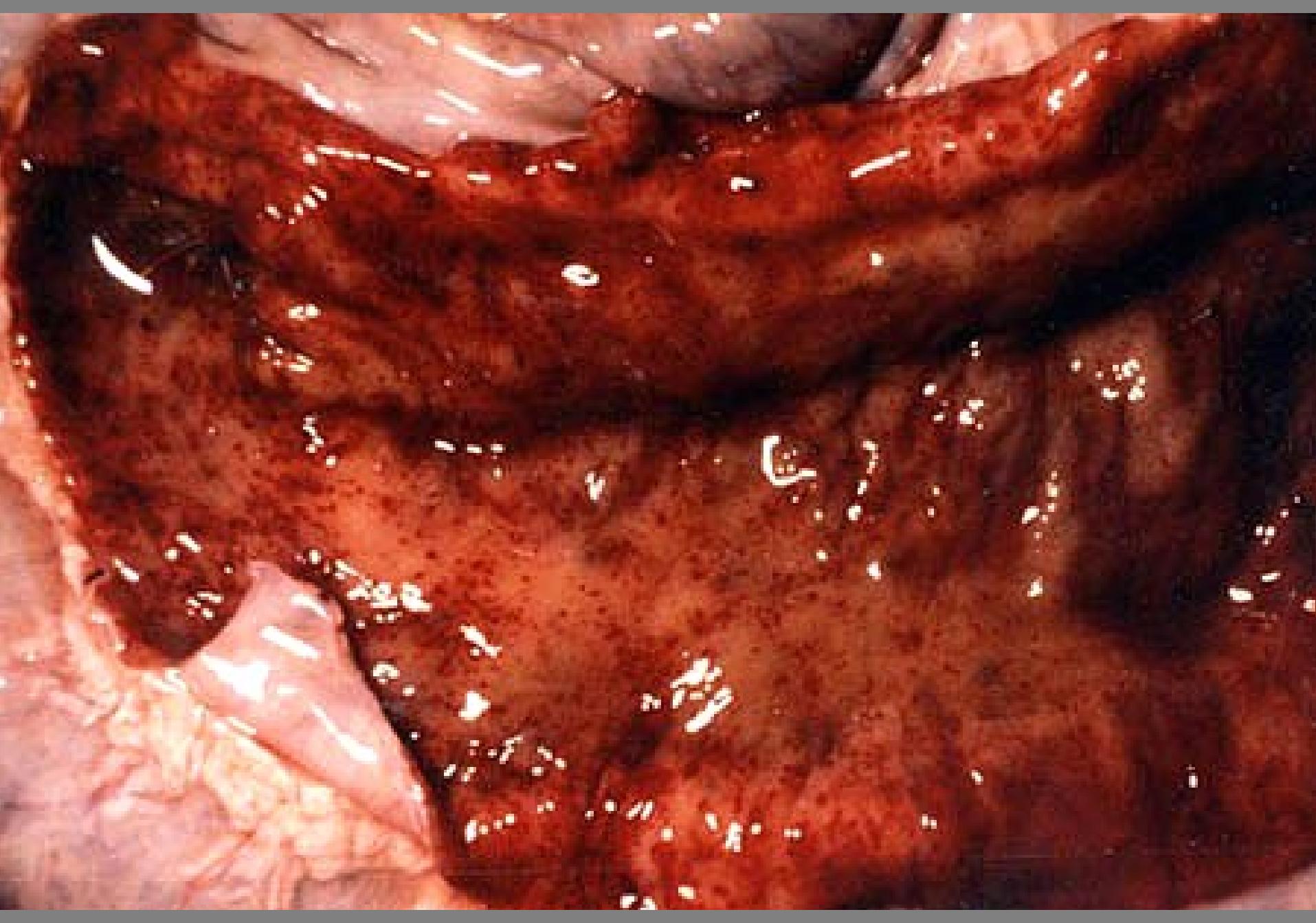
Small intestine – atrophy of villi – TGE



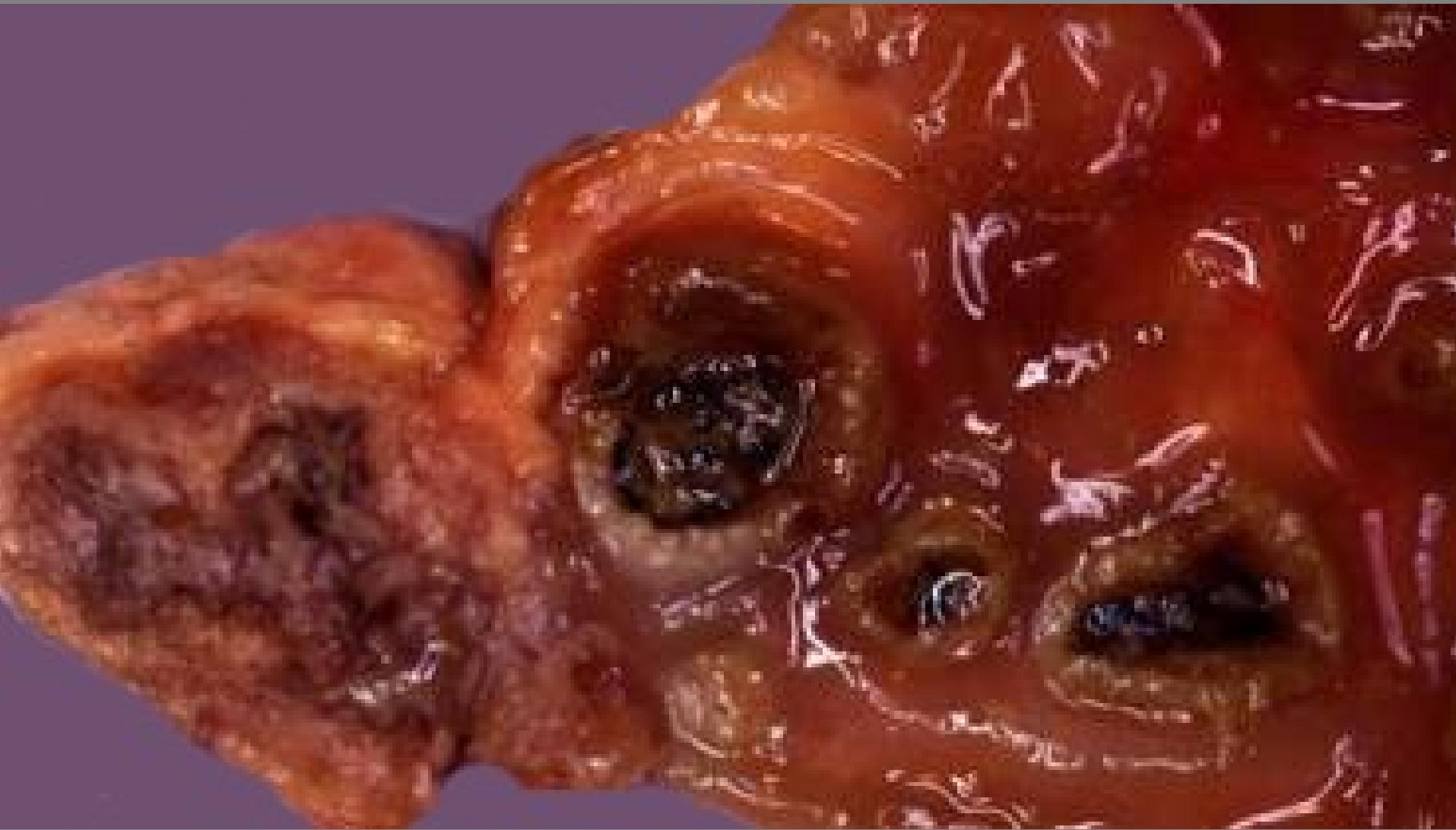
Small intestine – atrophy of villi – TGE coronavirus infection



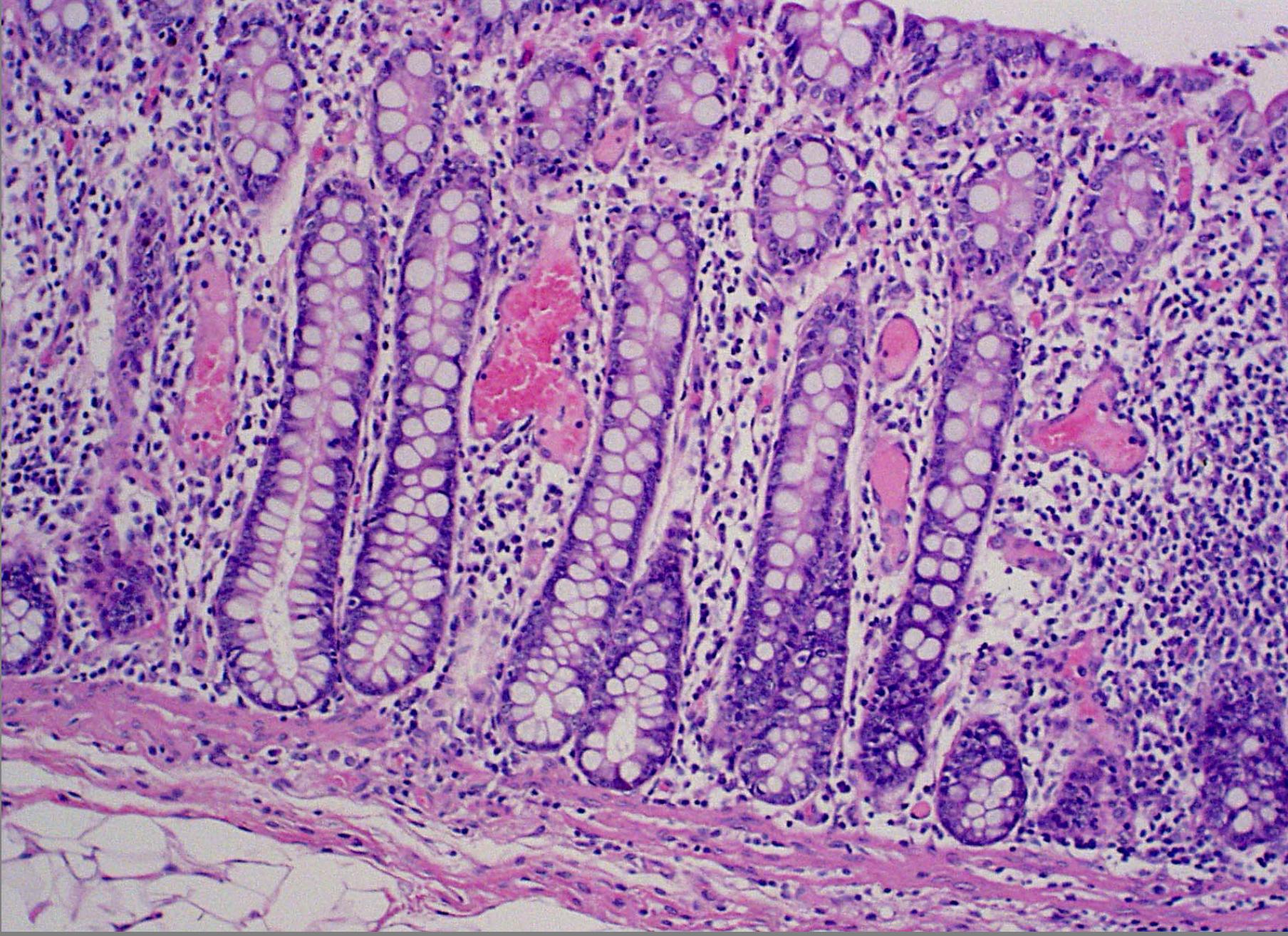
Intestine – petechiae – DD: sepsis, viral infection – CFS pestivirus in this case



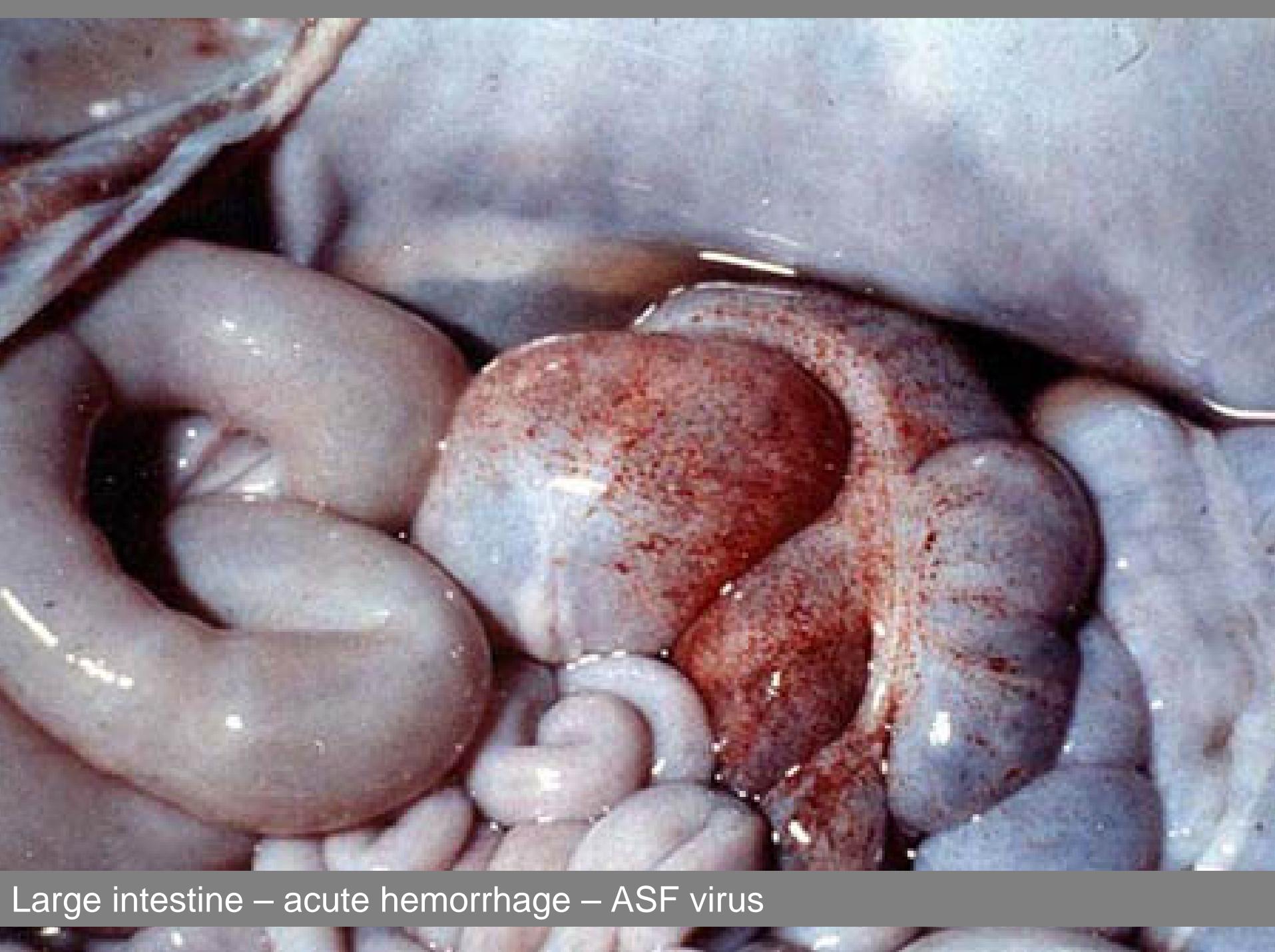
Intestine – petechiae – DD: sepsis, viral infection – CFS pestivirus in this case



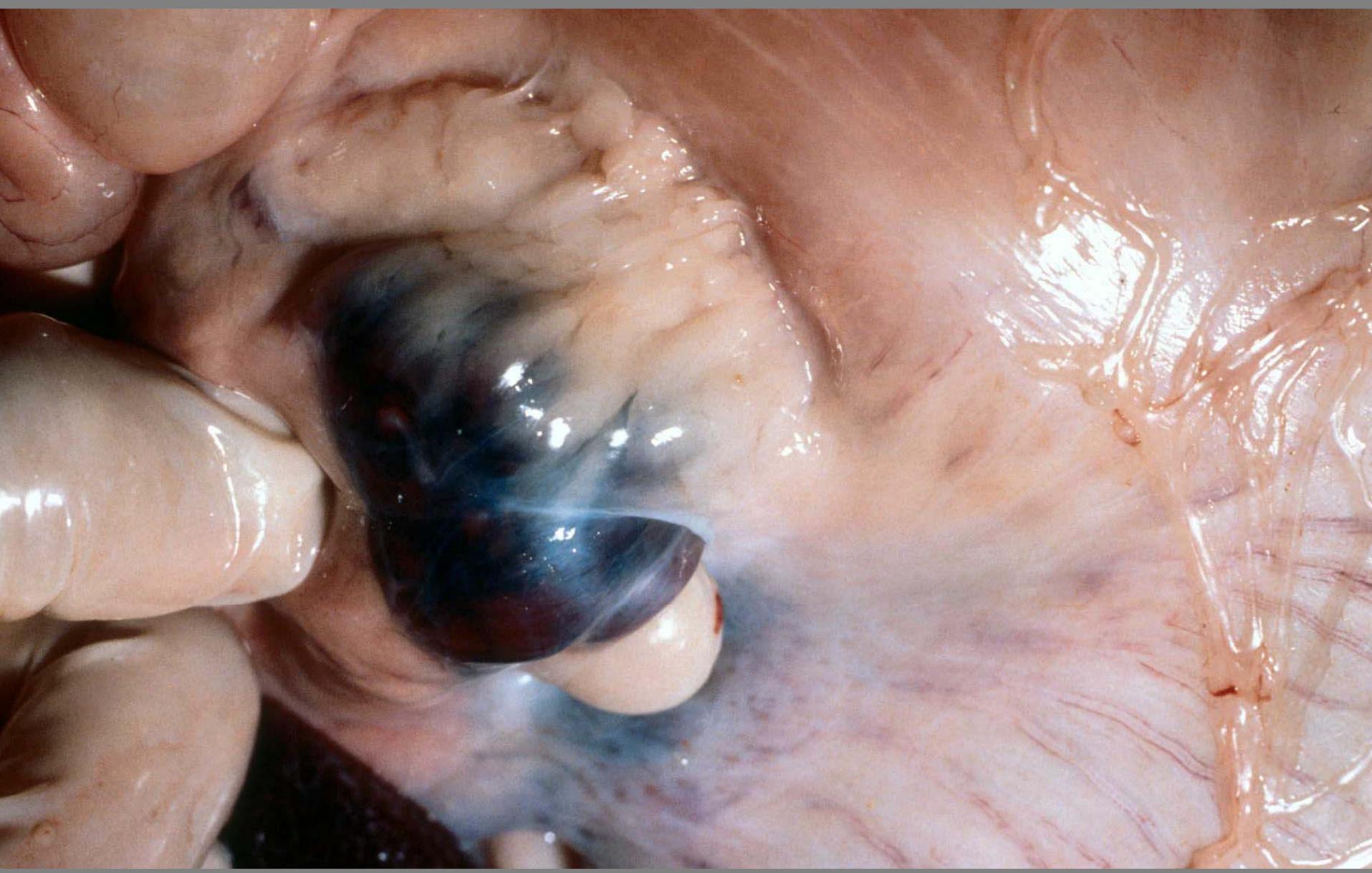
Intestine – necrosis of Peyer's patches – DD: sepsis, viral infection – CSF postivivirus in this case



Large intestine – acute microthrombi – CSF pestivirus



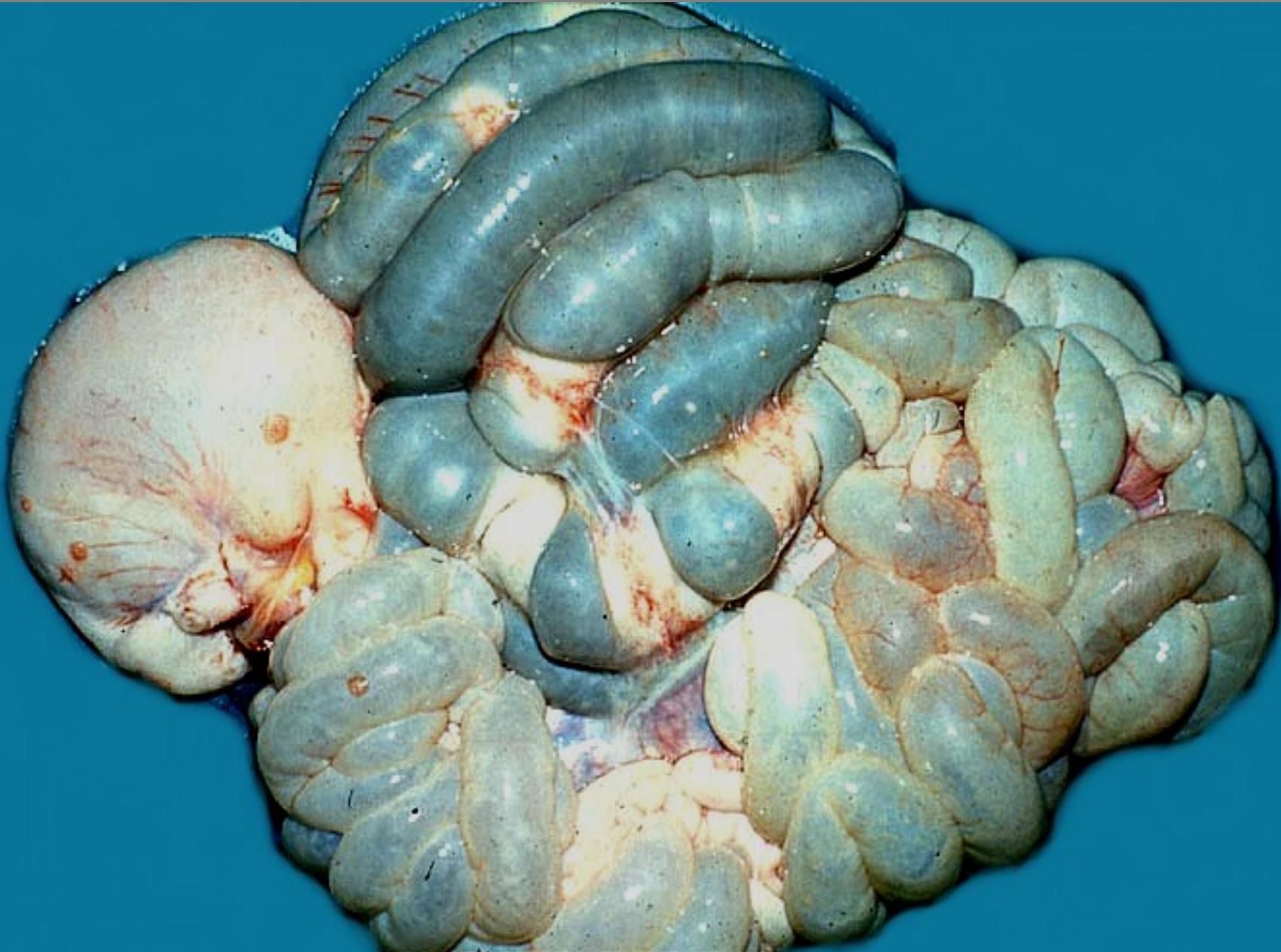
Large intestine – acute hemorrhage – ASF virus



Gastrohepatic lymph node – acute hemorrhage – ASF virus



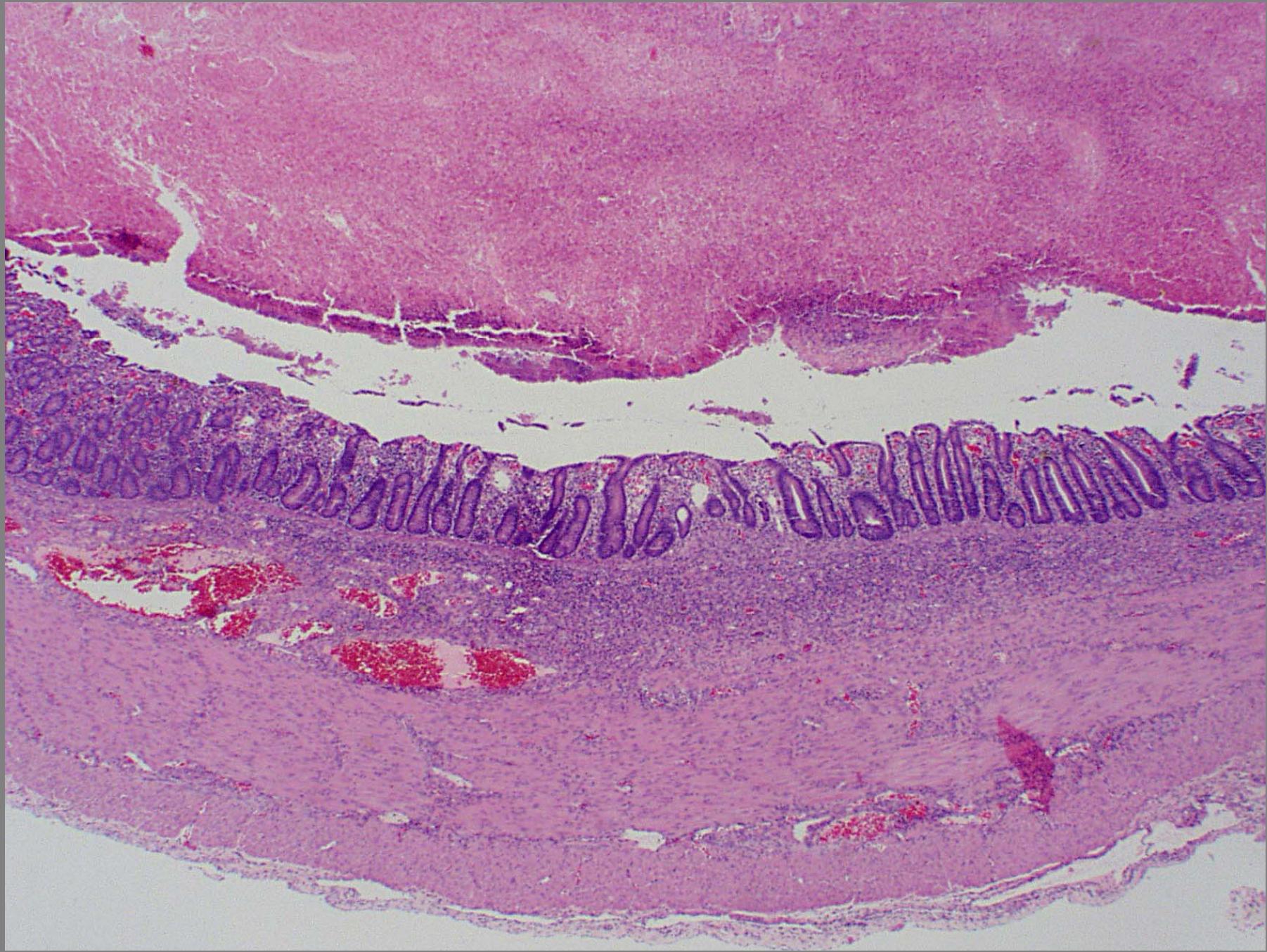
Small intestine – necrotizing enteritis – *Salmonella* spp.



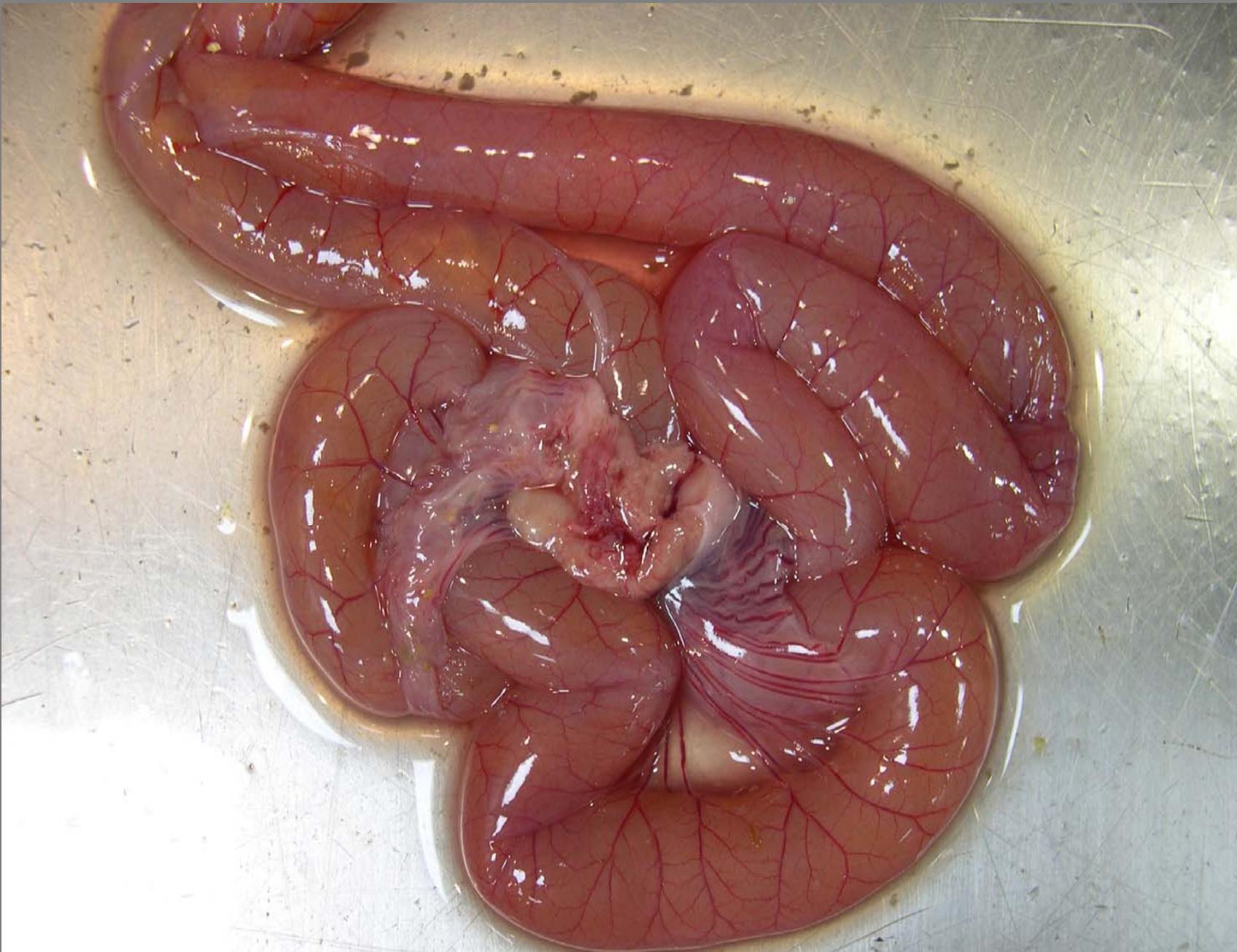
Intestine – segmental necrotizing enteritis – *Salmonella* spp.



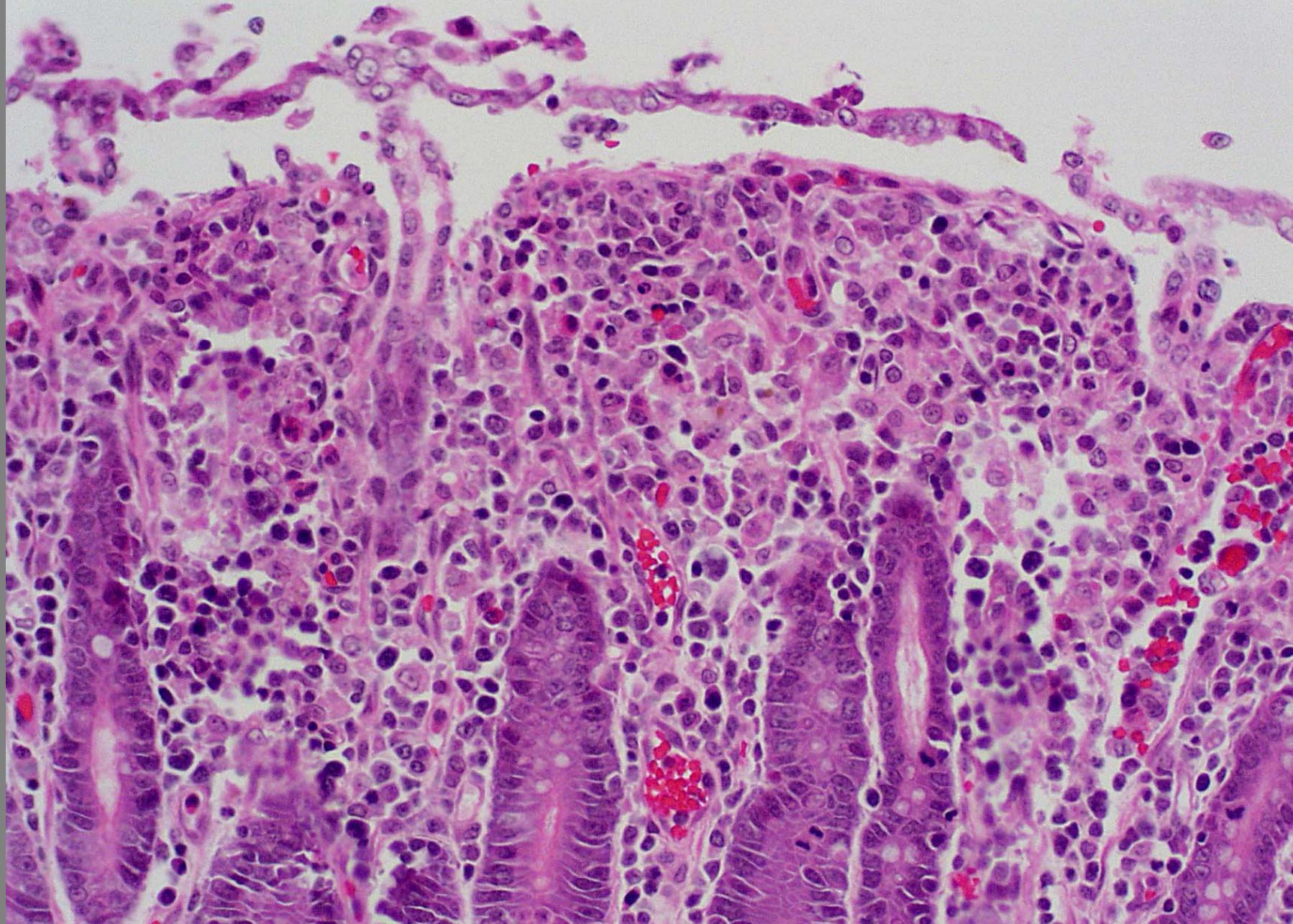
Intestine – segmental necrotizing enteritis – *Salmonella* spp.



Intestine – fibrinous croupal and diphtheritic enteritis – *Salmonella* spp.



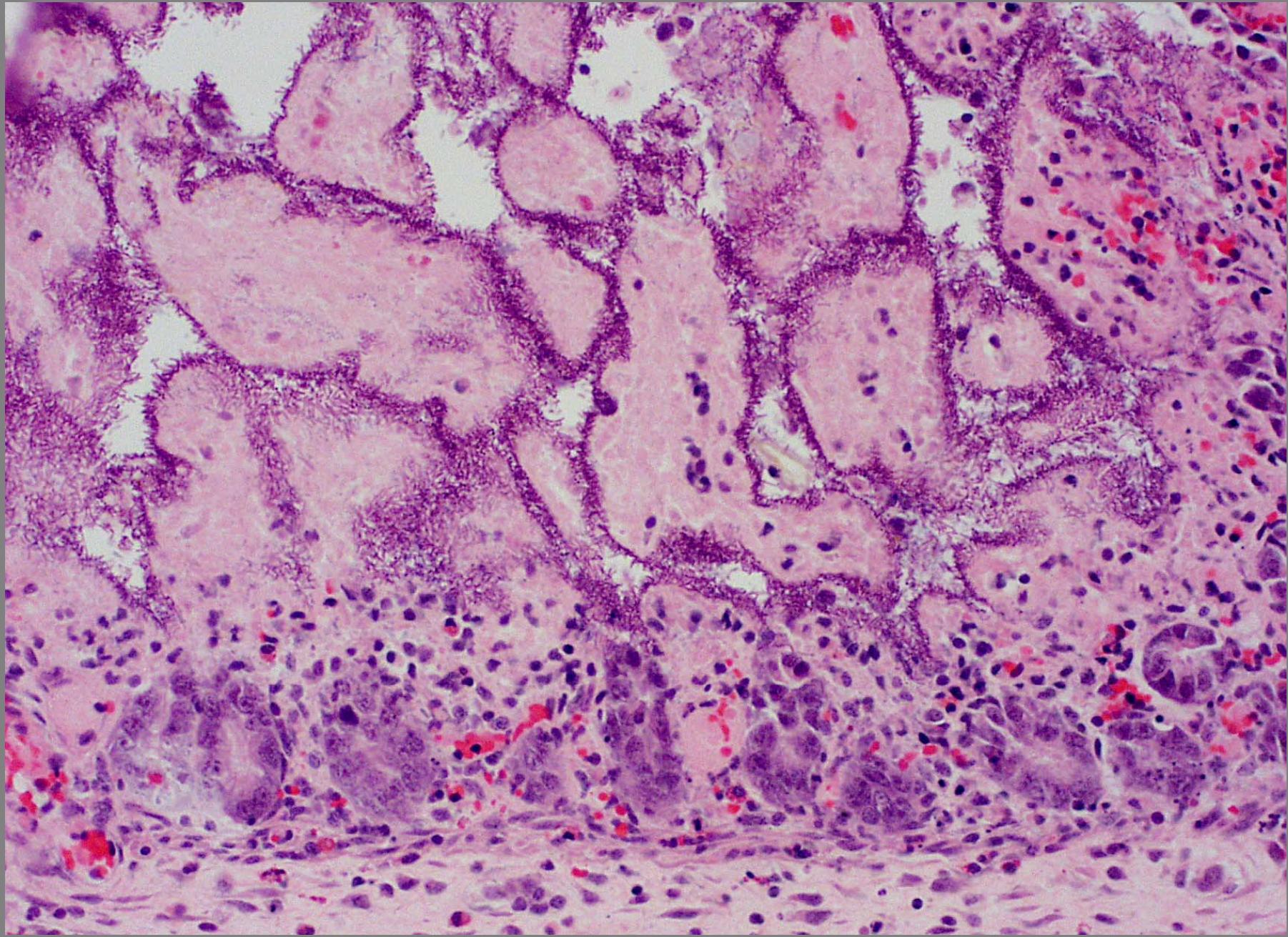
Intestine – catarrhal enteritis – *Salmonella* spp. + *Isospora* + *Cryptosporidium* + *E. coli*



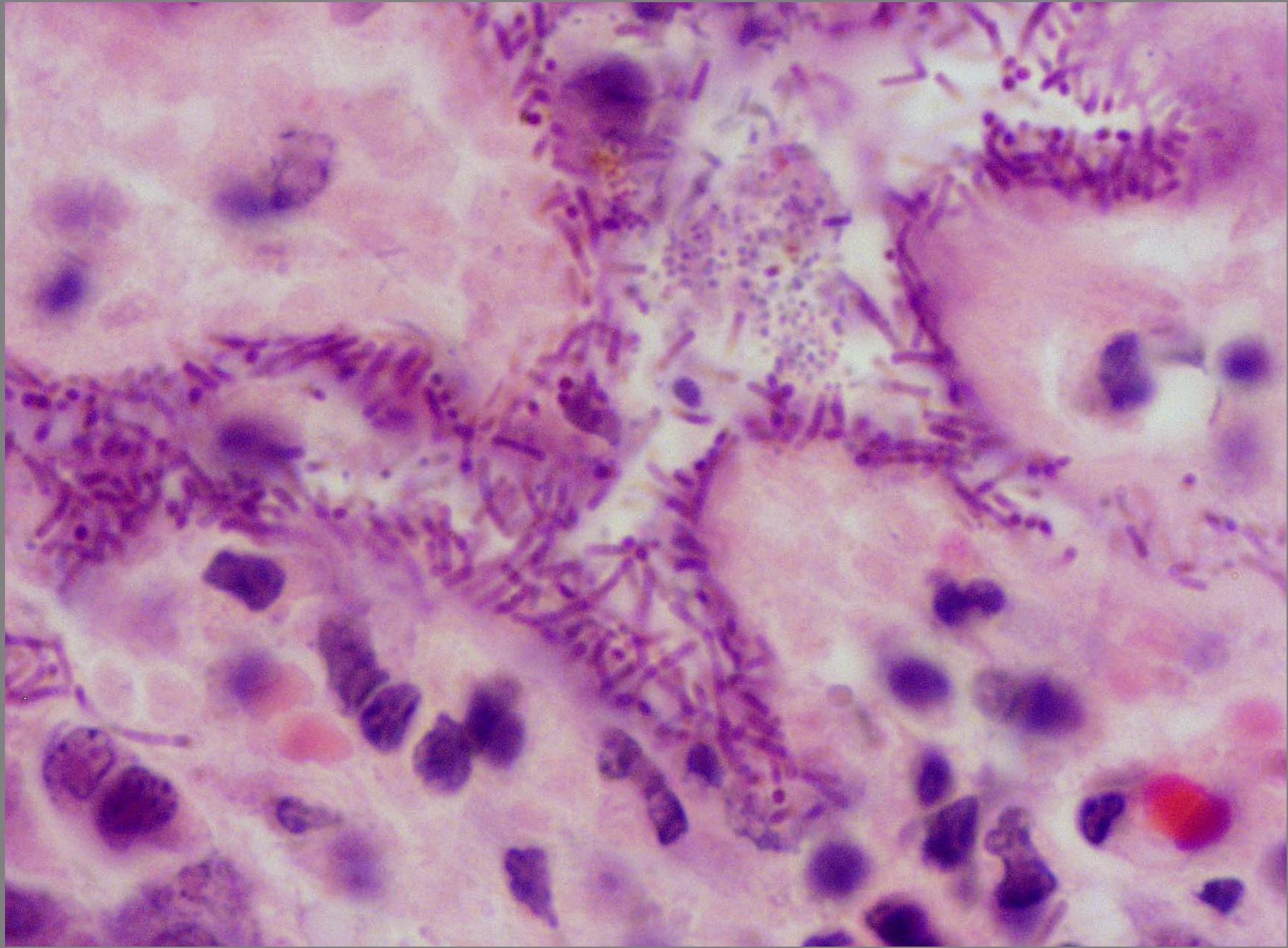
Intestine – chronic histiocytic, lymphocytic, plasmacytic enteritis – *Salmonella* spp. + *Cryptosporidium*.



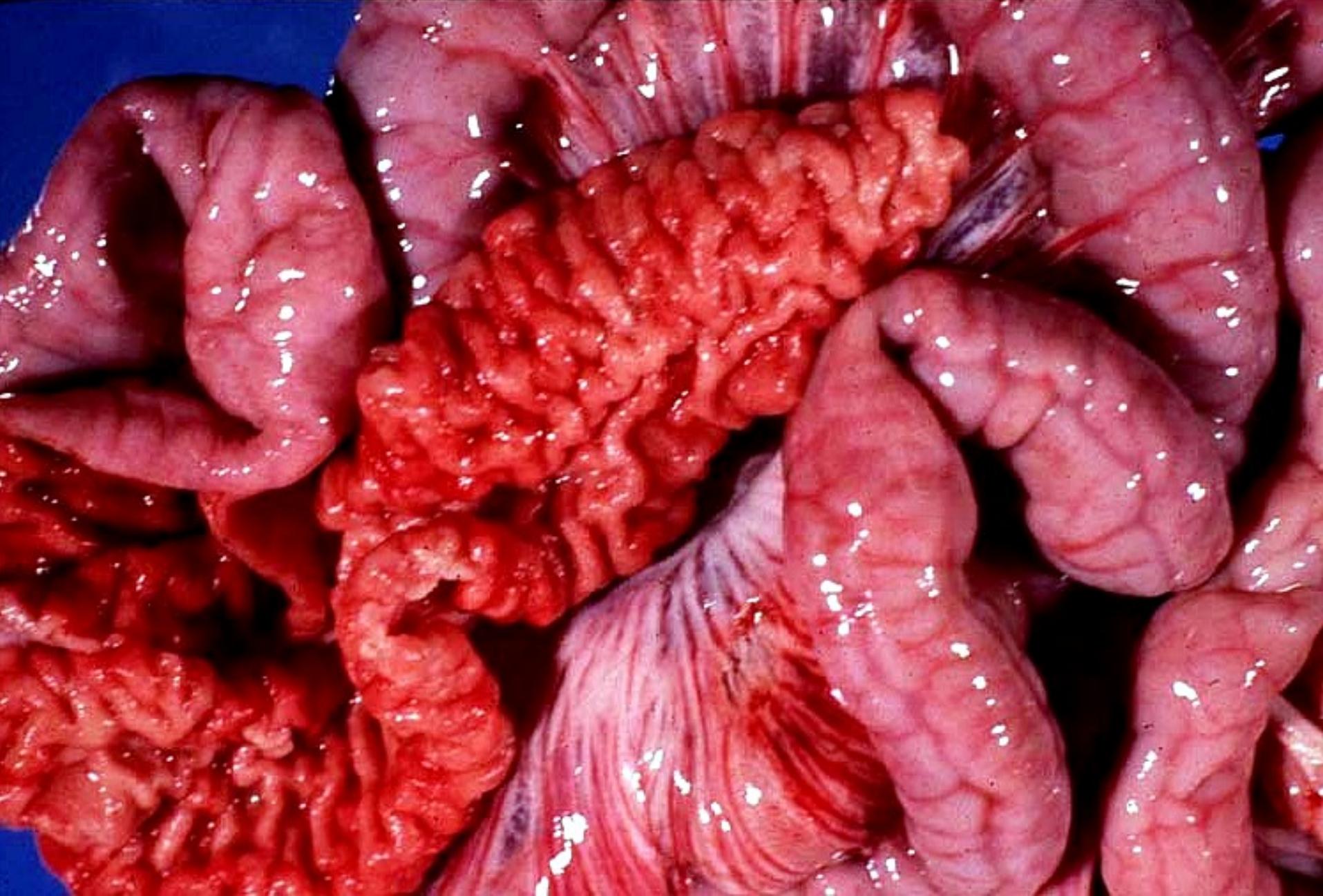
Intestine – segmental necrohemorrhagic enteritis – *Clostridium* spp.



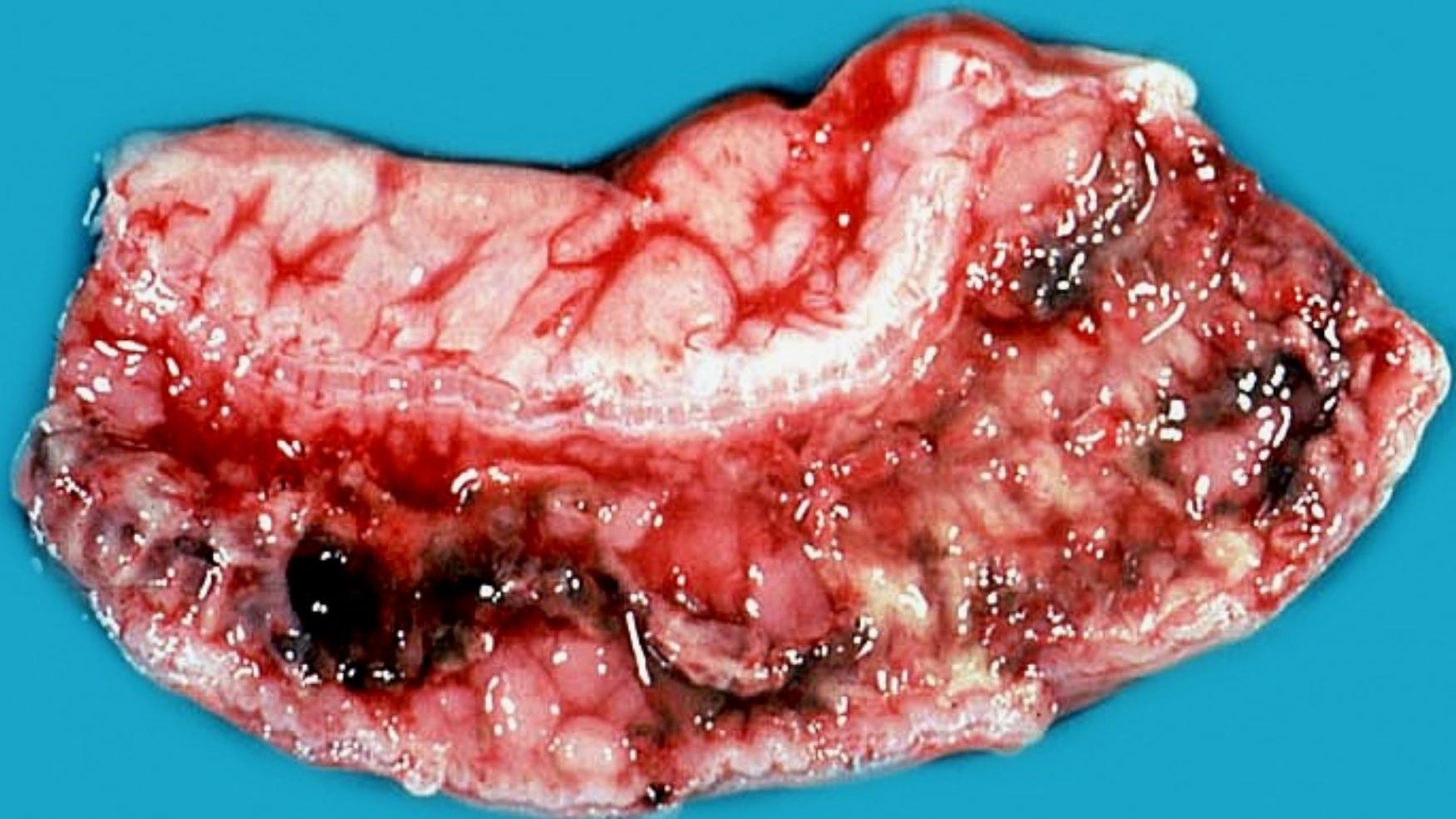
Intestine – acute necrosis with superficial intralesional bacilli– *Clostridium* spp.



Intestine – acute necrosis with superficial intralesional bacilli– *Clostridium* spp.



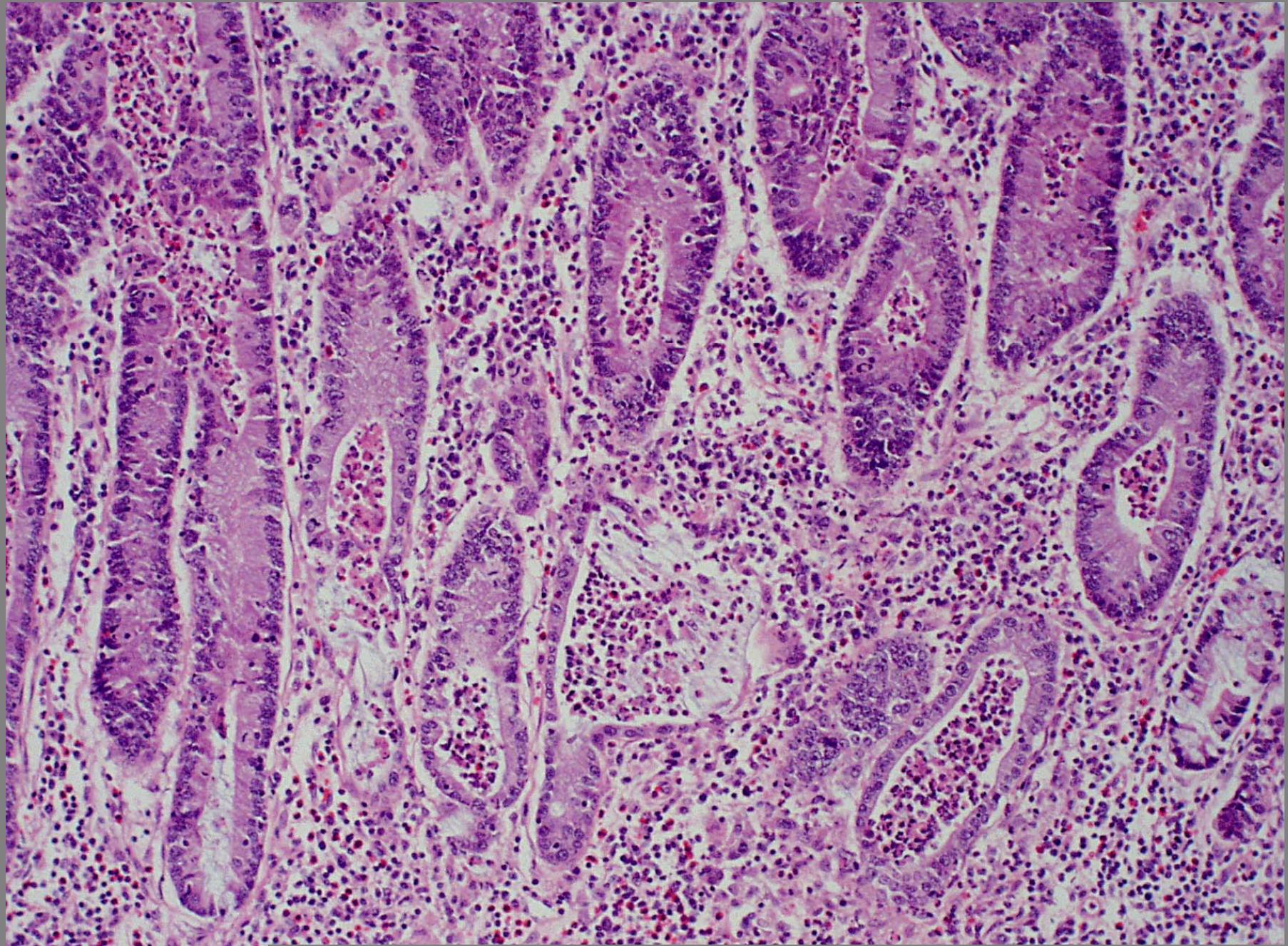
Intestine – proliferative distal ileitis – *Lawsonia intracellularare*



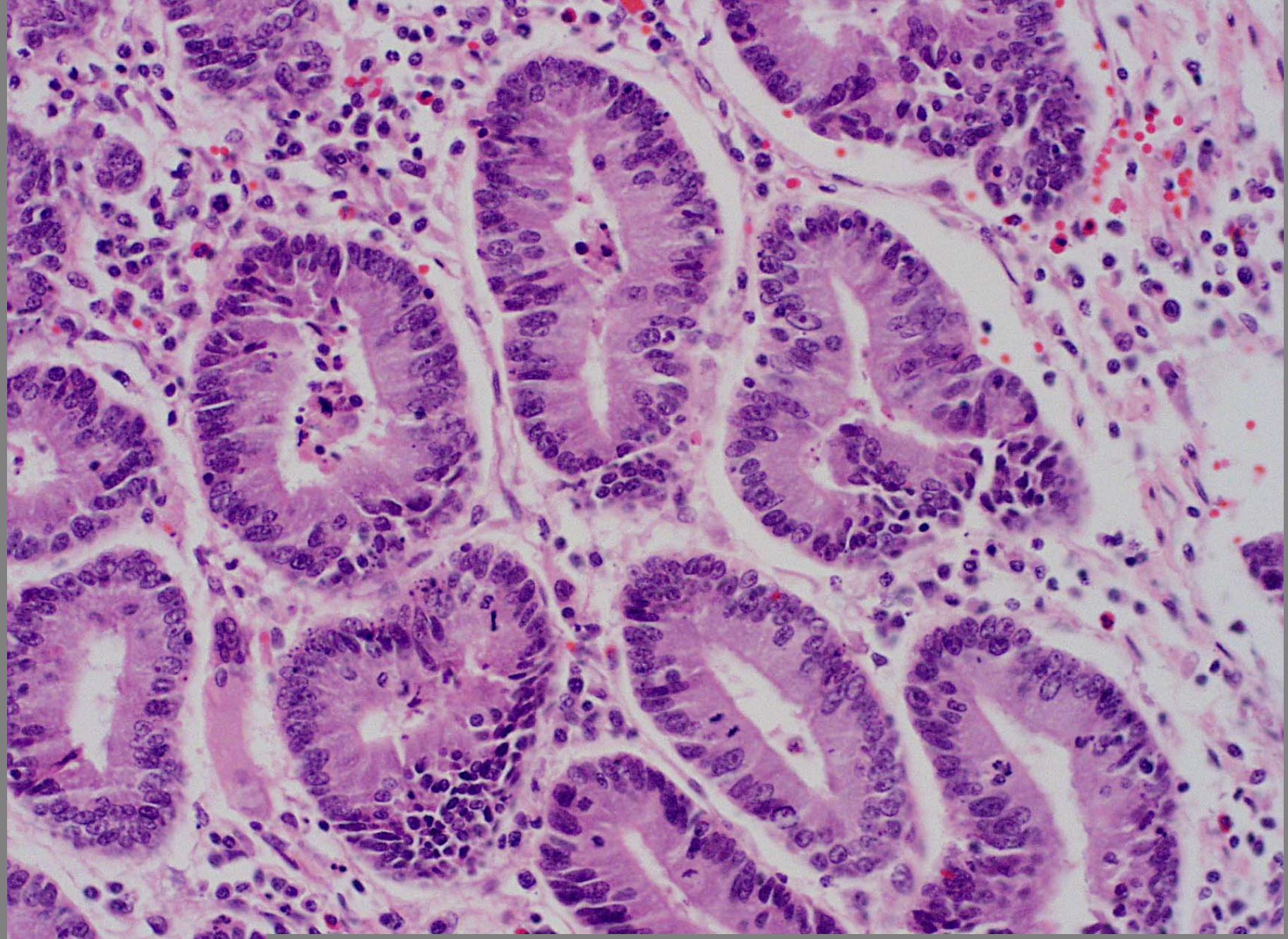
Intestine – proliferative hemorrhagic distal ileitis – *Lawsonia intracellularare*



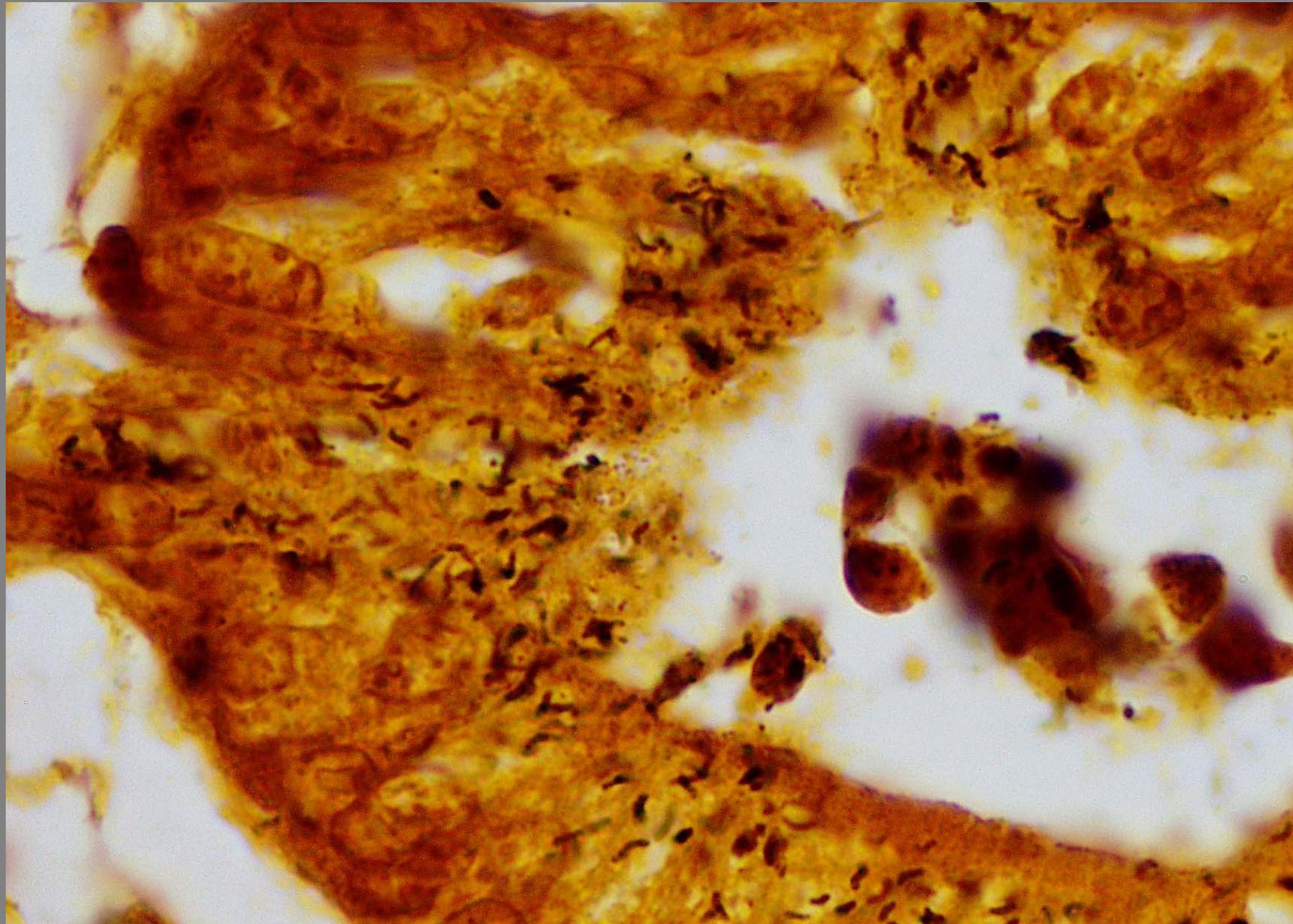
Intestine – proliferative distal ileitis – *Lawsonia intracellularare*



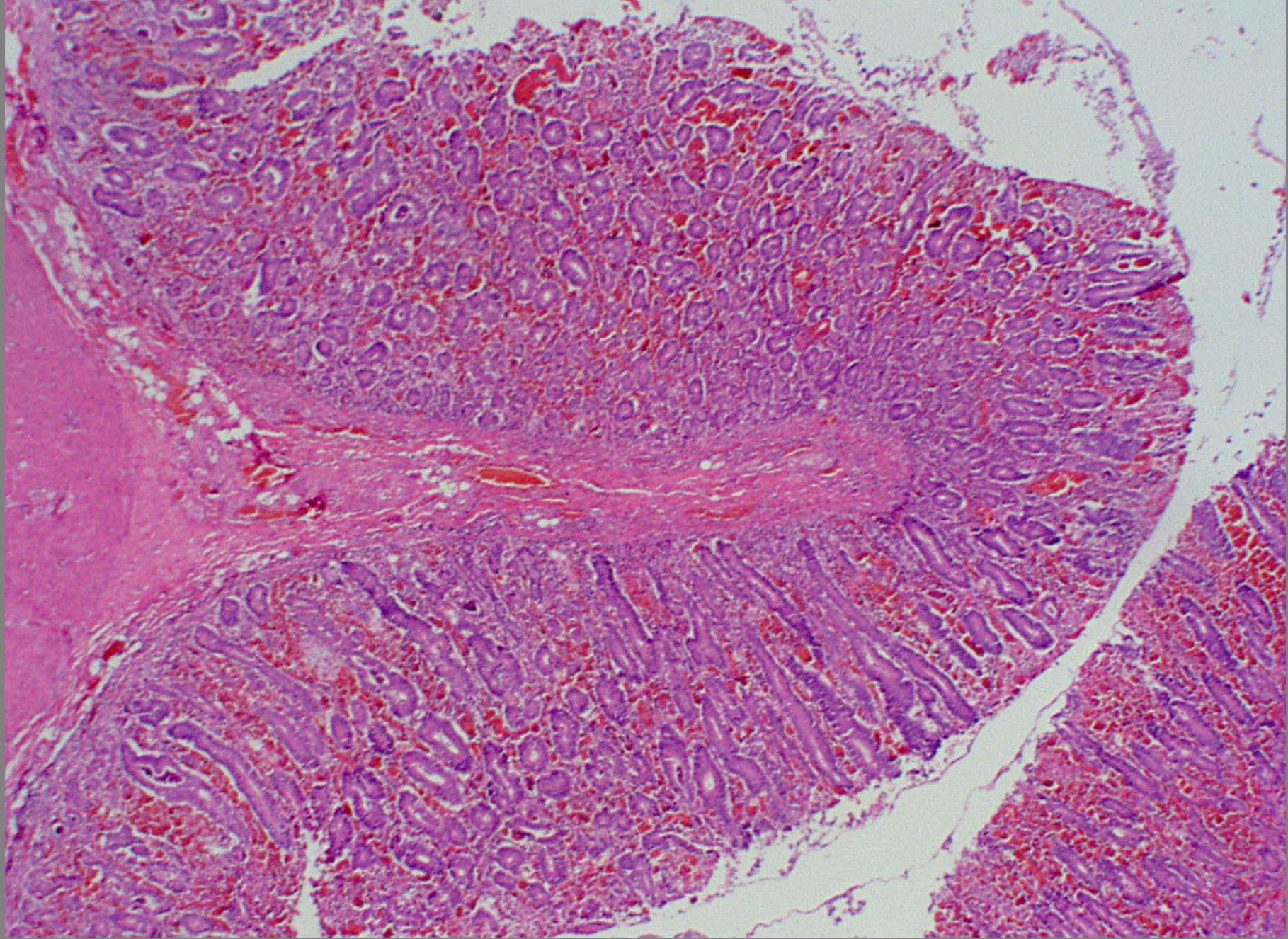
Intestine – proliferative distal ileitis – *Lawsonia intracellularare*



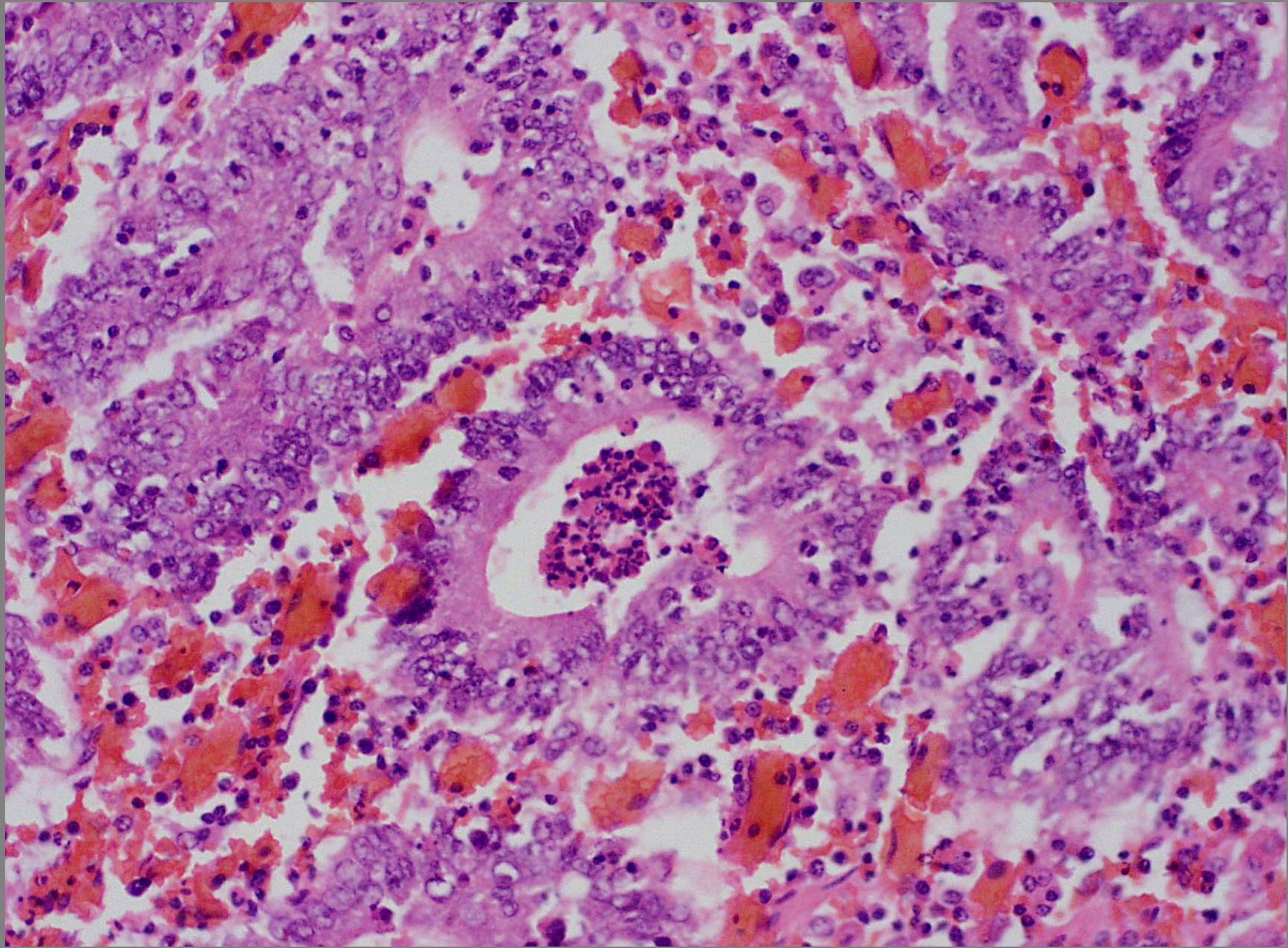
Intestine – proliferative distal ileitis – *Lawsonia intracellularare*



Intestine – proliferative distal ileitis – *Lawsonia intracellularare* – Whartin Starry stain



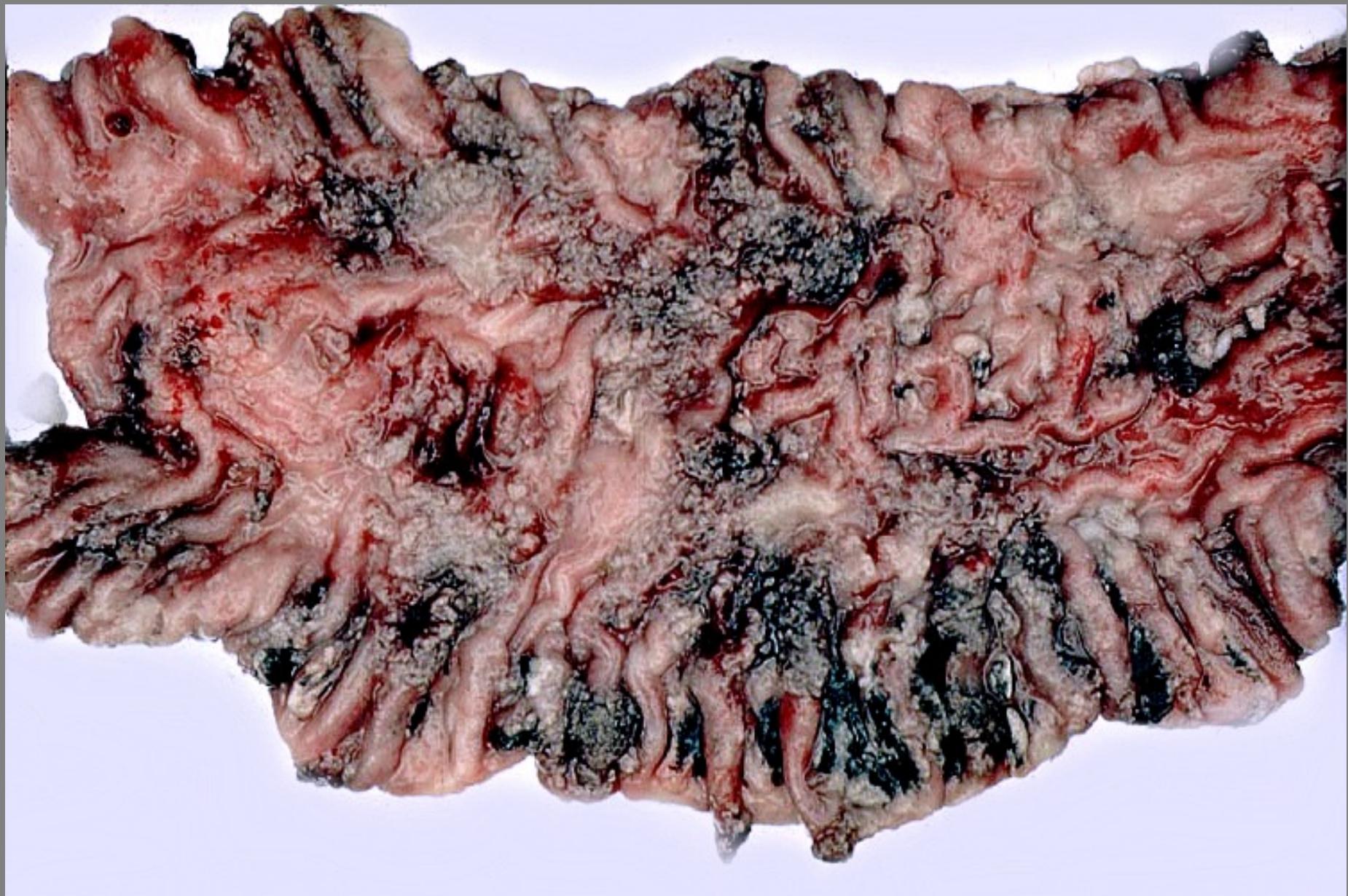
Intestine – proliferative hemorrhagic distal ileitis – *Lawsonia intracellularare*



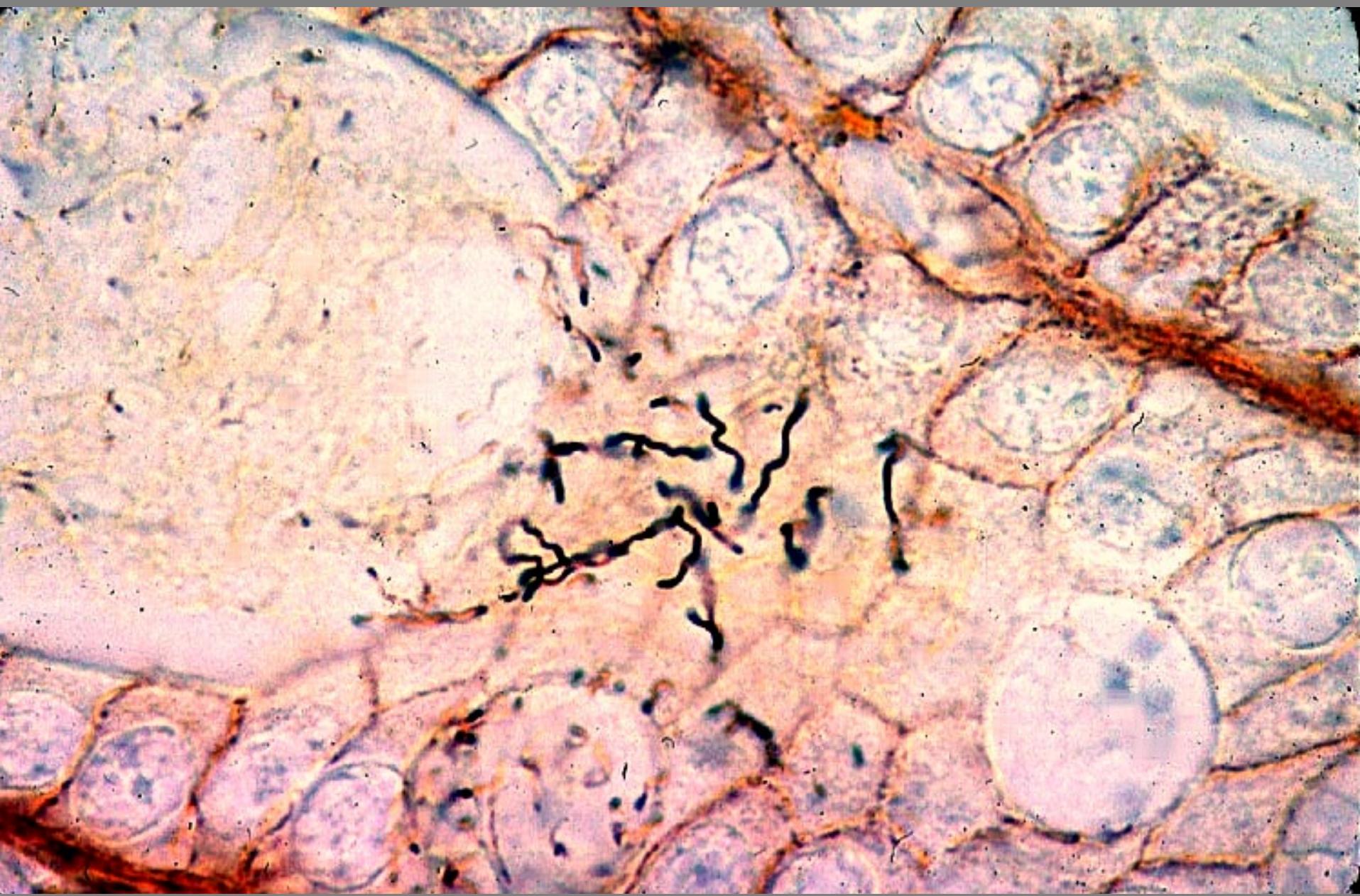
Intestine – proliferative hemorrhagic distal ileitis – *Lawsonia intracellularare*



*Brachyspira aalborgi*  
*Brachyspira alvinipulli,*  
*Brachyspira hyodysenteriae*  
*Brachyspira pilosicoli*  
*Brachyspira innocens*



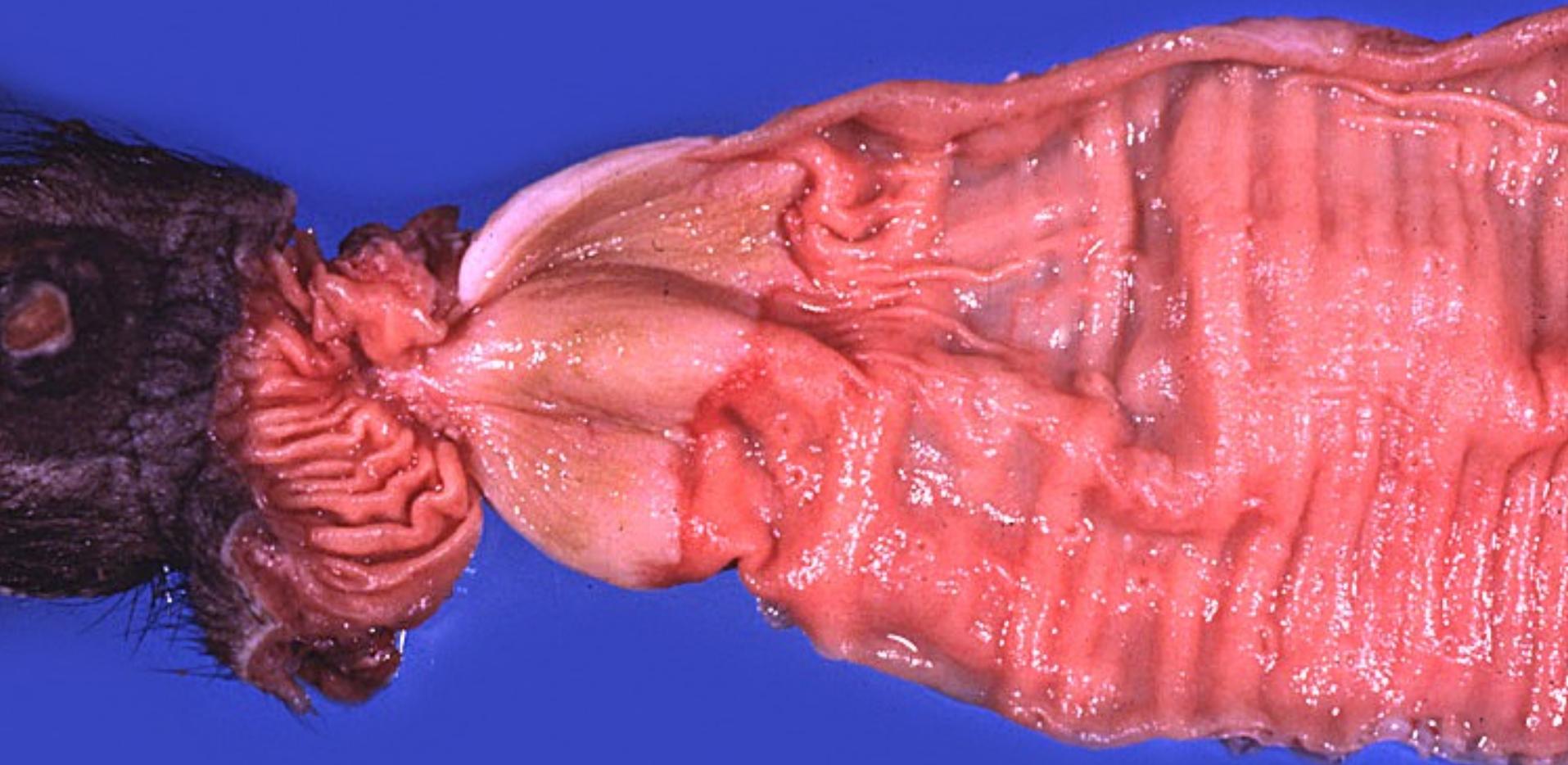
Large intestine – proliferative ulcerative necrotizing colitis – *Brachyspira hyodysenteriae*



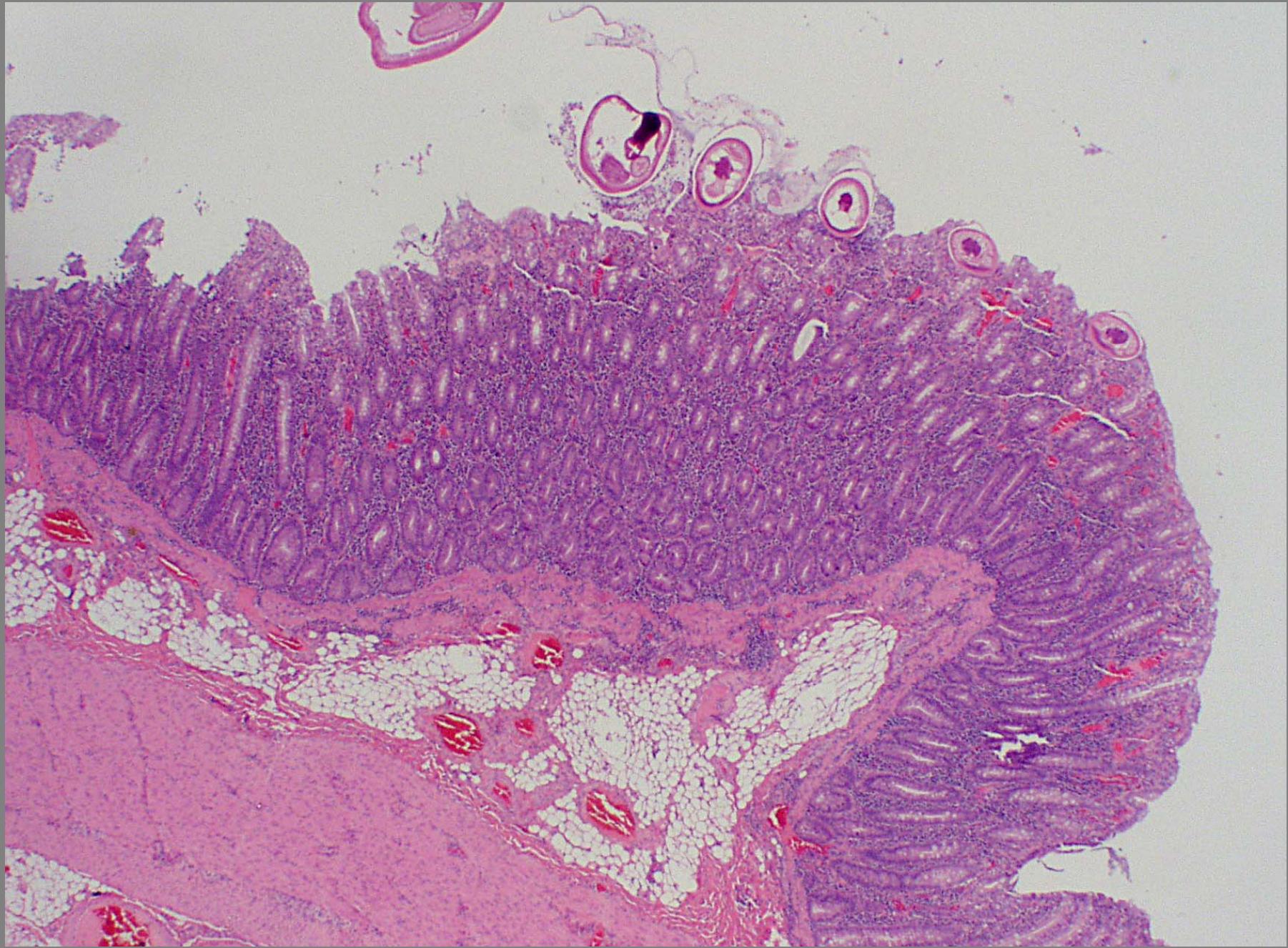
Colon – *Brachyspira hyodysenteriae* - Whartin Starry silver stain



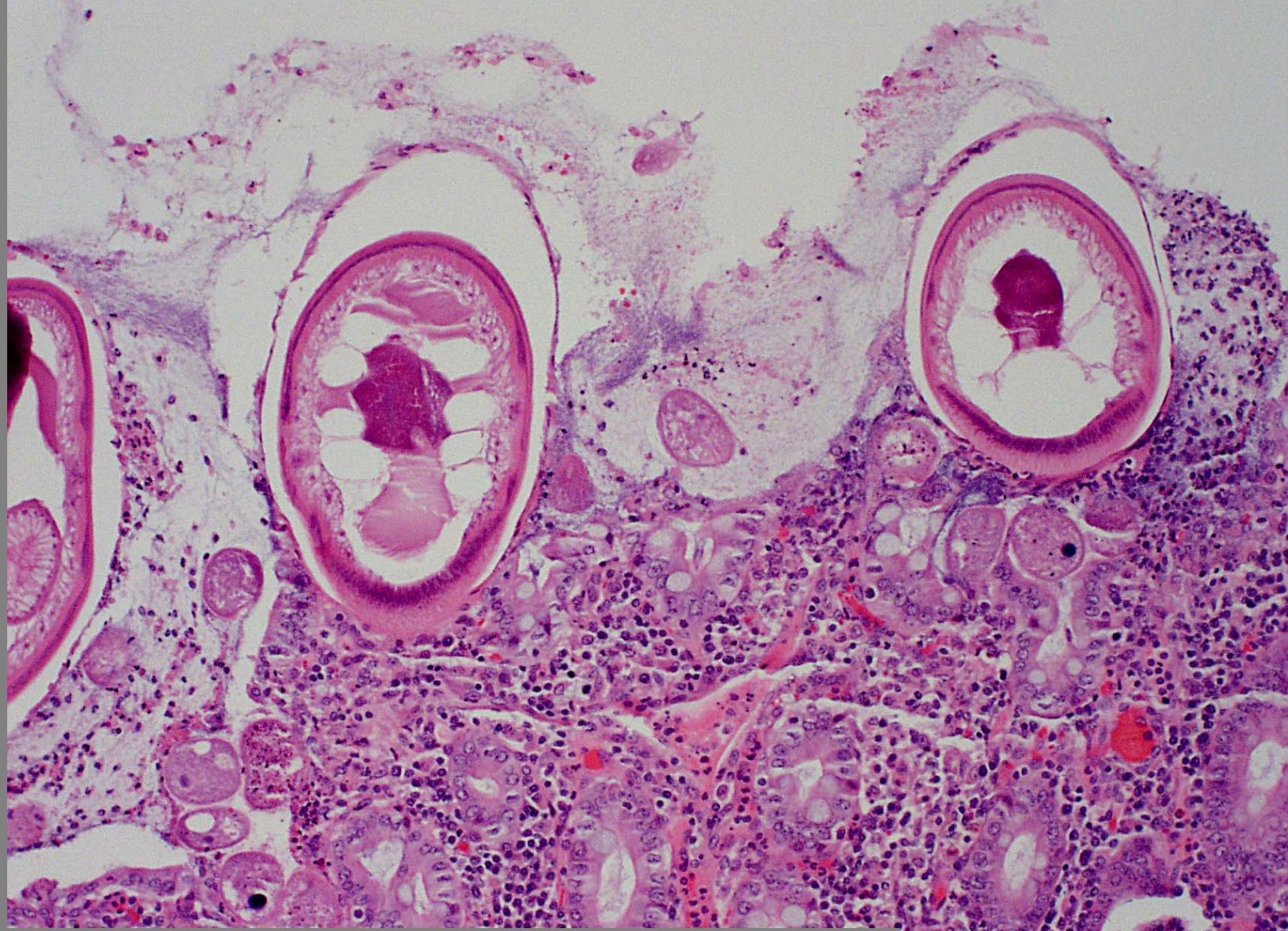
Colon – severe acute edema – edema disease – *E. coli*



Rectum – post ischemic stenosis – *Salmonella* spp. infection (presumptive)



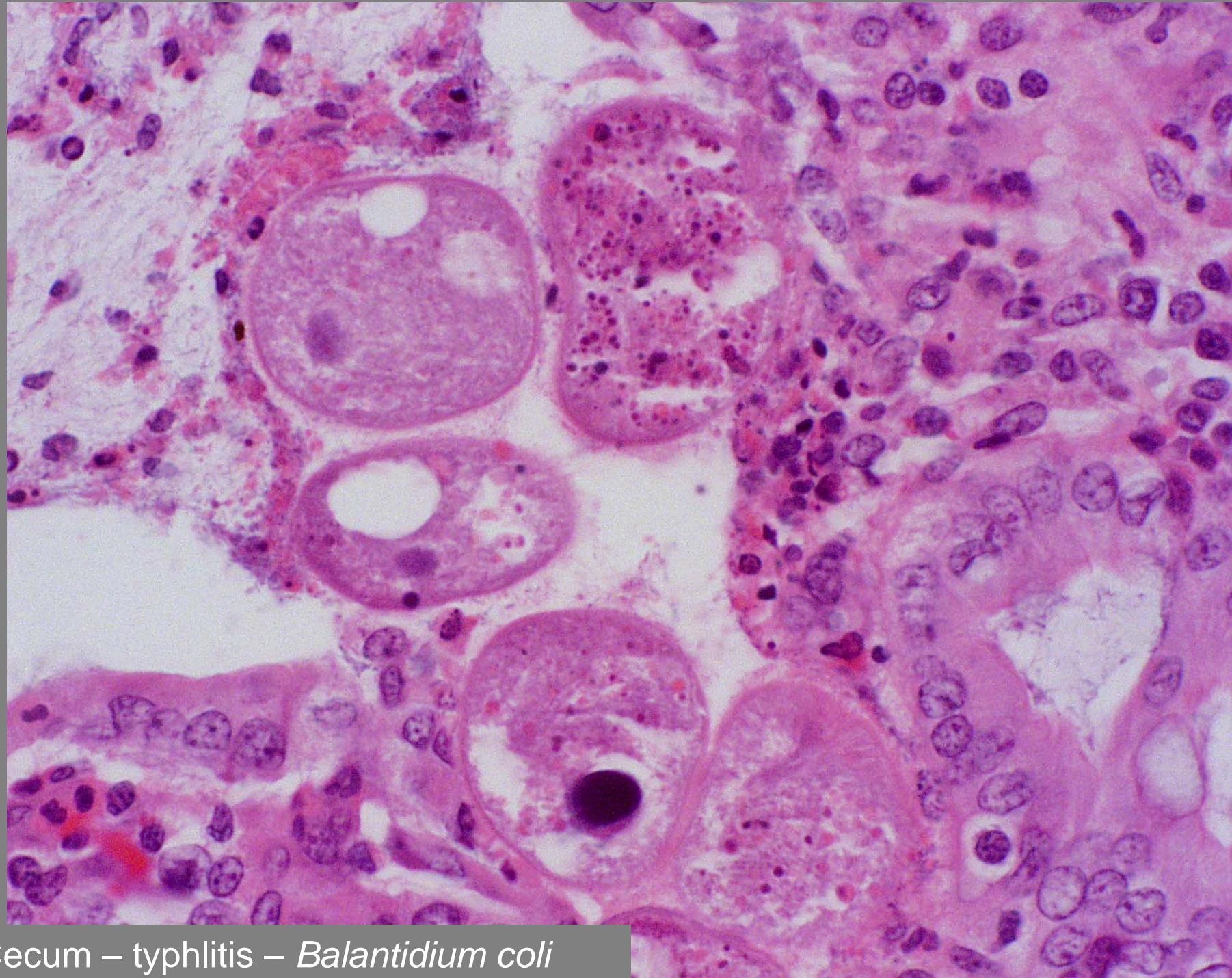
Cecum – typhlitis – *Trichuris suis*



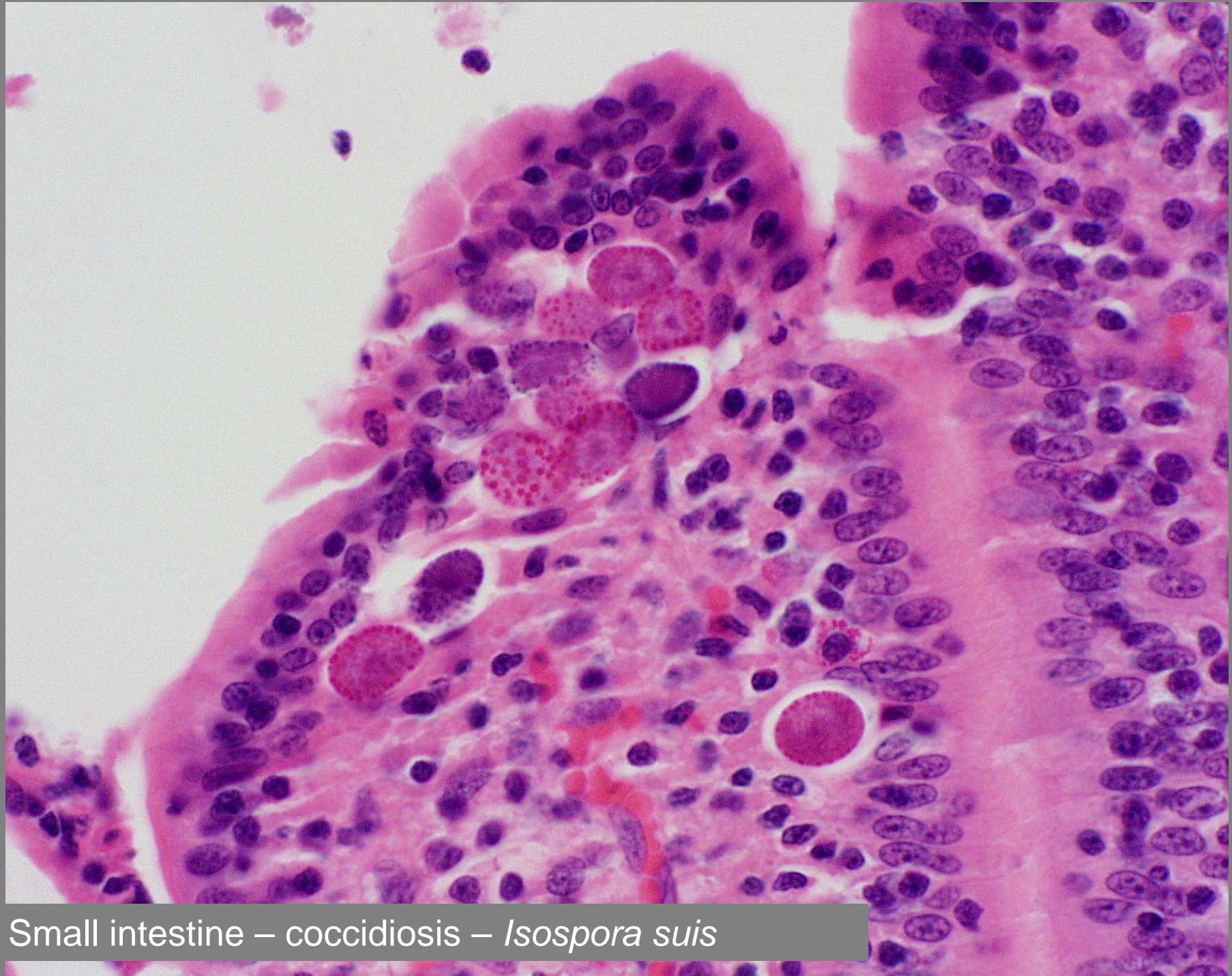
Cecum – typhlitis – *Trichuris suis*, *Balantidium coli*



Cecum – typhlitis – *Trichuris suis*



Cecum – typhlitis – *Balantidium coli*



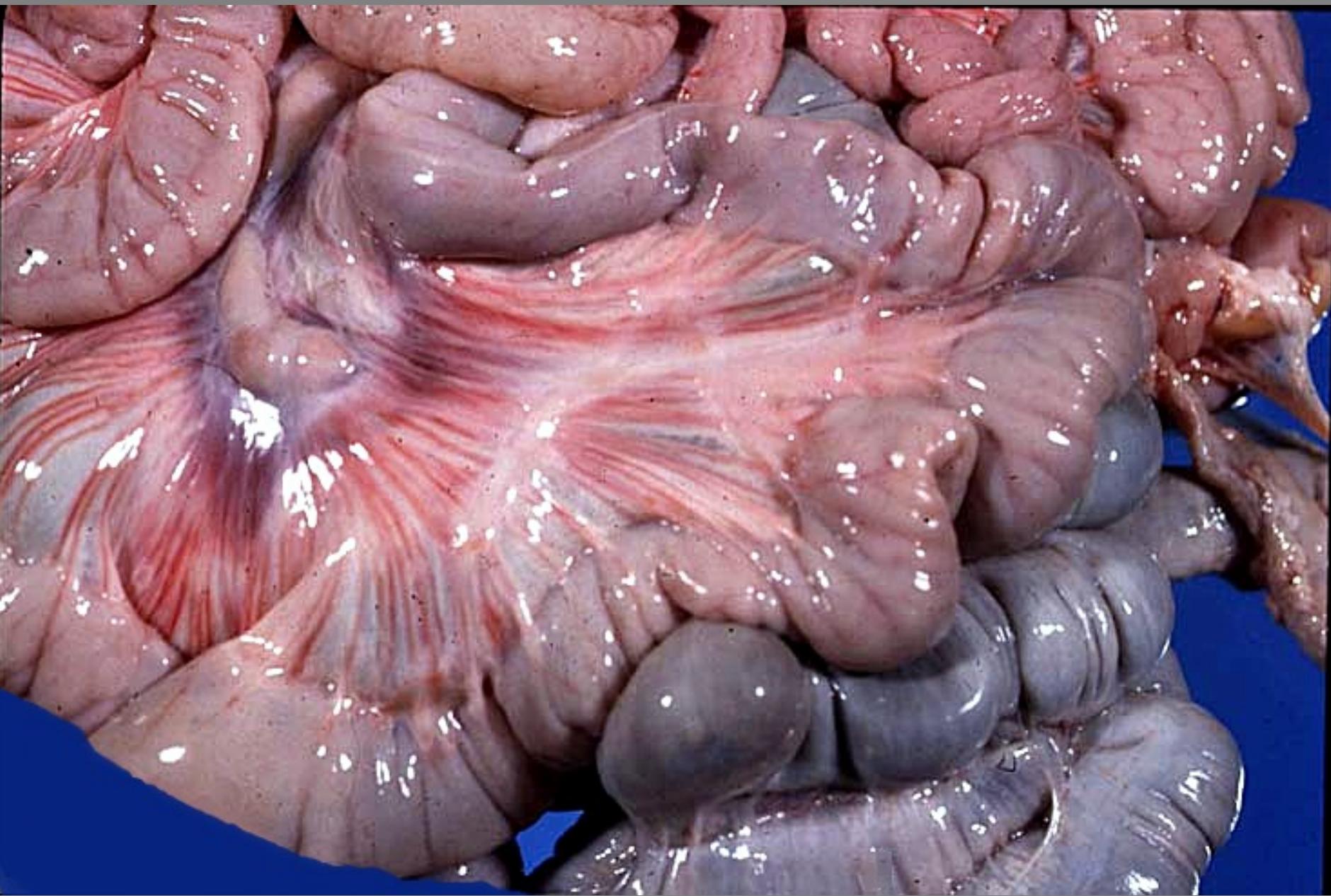
Small intestine – coccidiosis – *Isospora suis*



Small intestine – emphysema



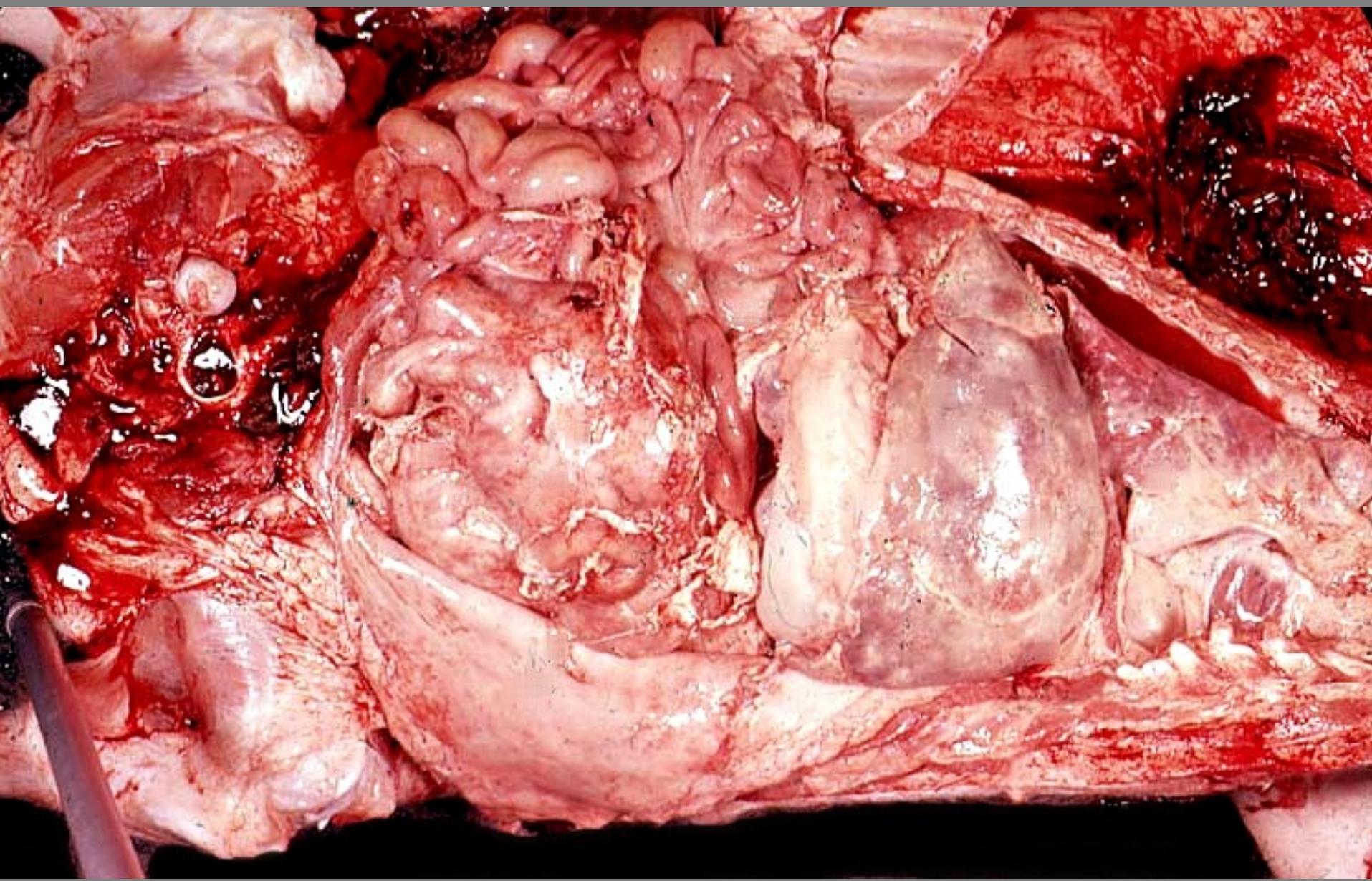
Mesenteric lymph node – emphysema



Small intestine – mesenteric osseous metaplasia



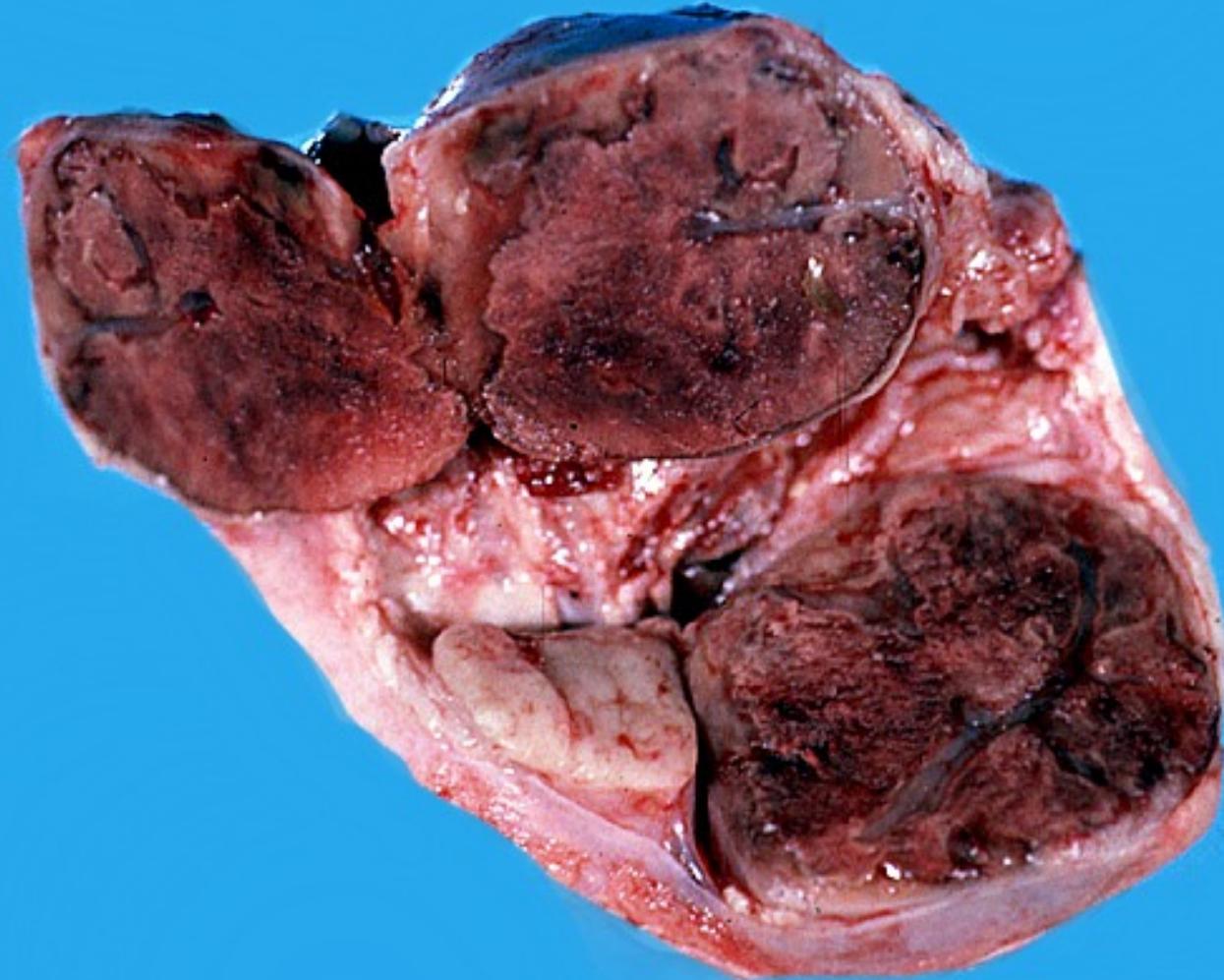
Stomach – lymphoma



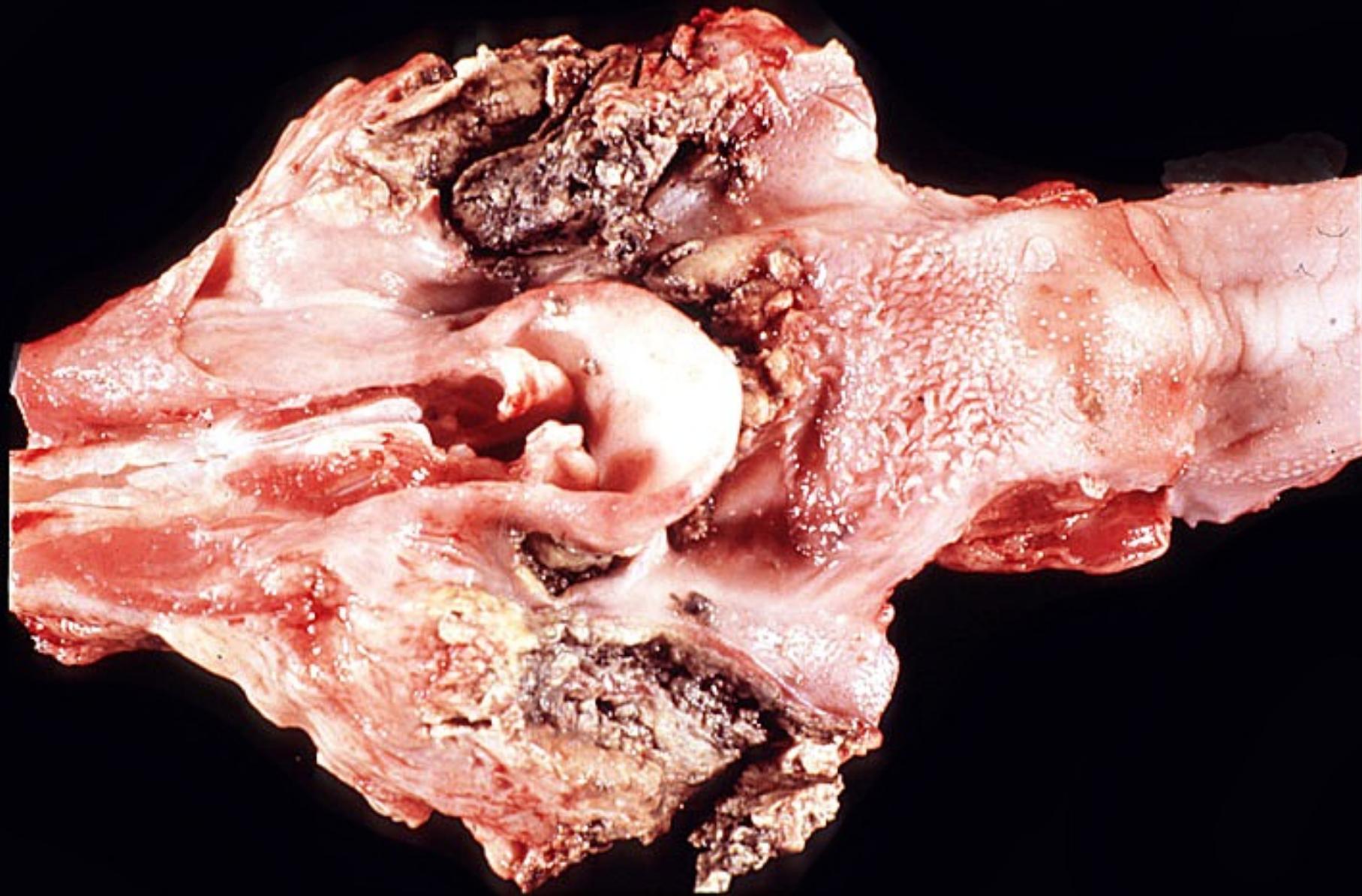
Intestine – lymphoma



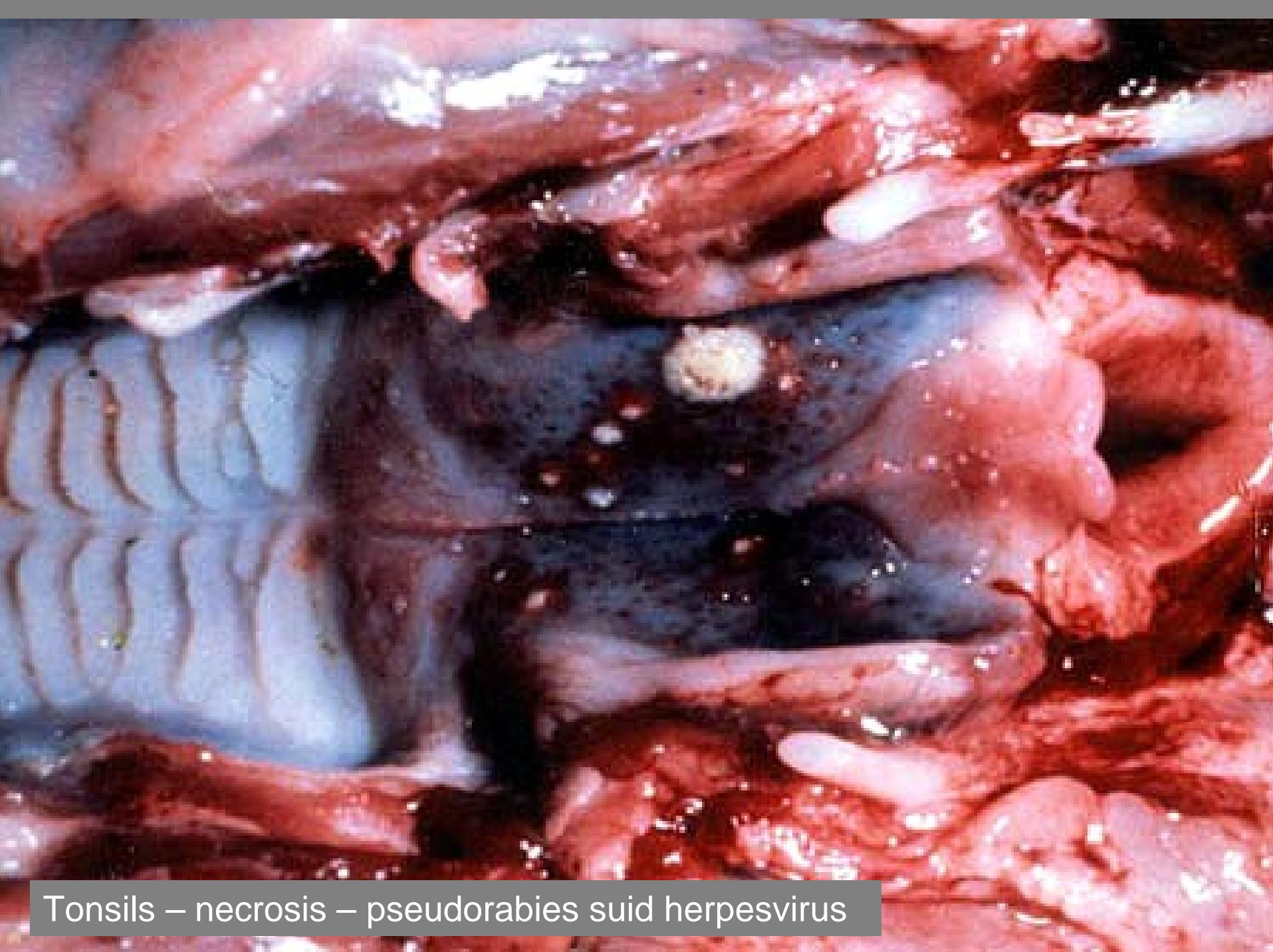
Lymph node – hemorrhage – CSF pestivirus



Lymph node – necrosis – Salmonella

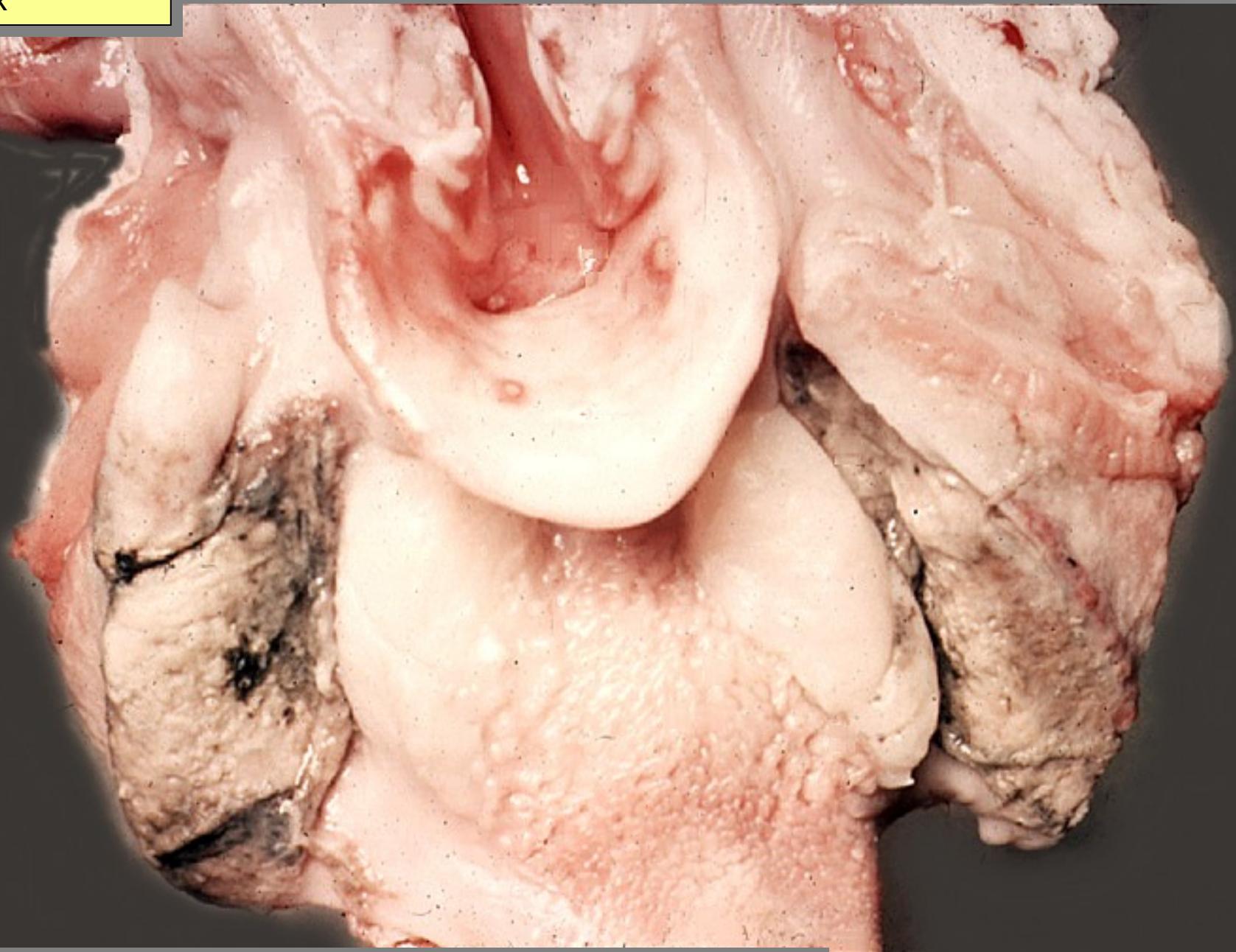


Tonsils – hemorrhage and necrosis – ASF virus

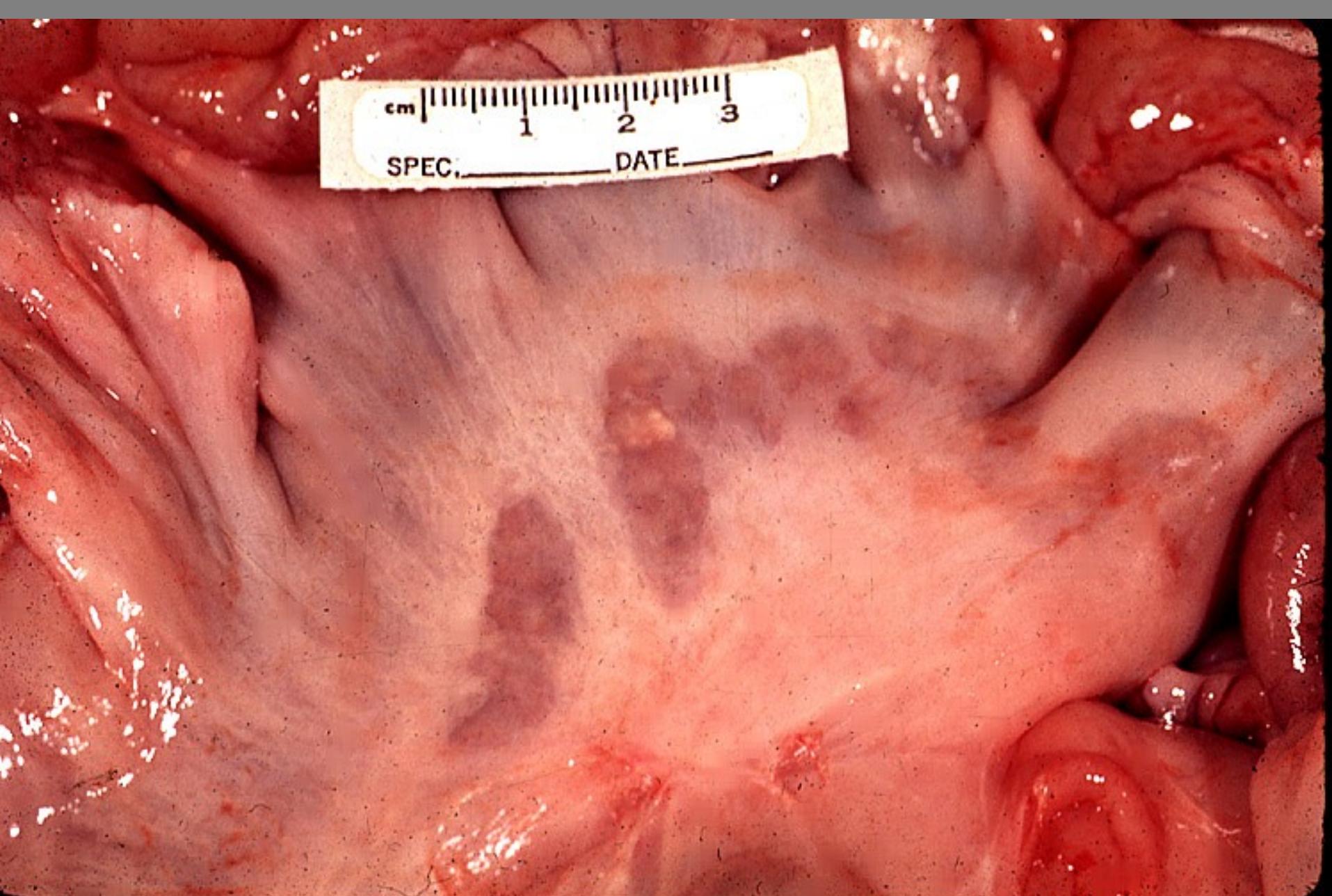


Tonsils – necrosis – pseudorabies suid herpesvirus

anthrax



Tonsils – necrosis – anthrax – *Bacillus anthracis*



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Mesenteric lymph nodes – caseous necrosis - *Mycobacterium avium*