Case 21

Horse

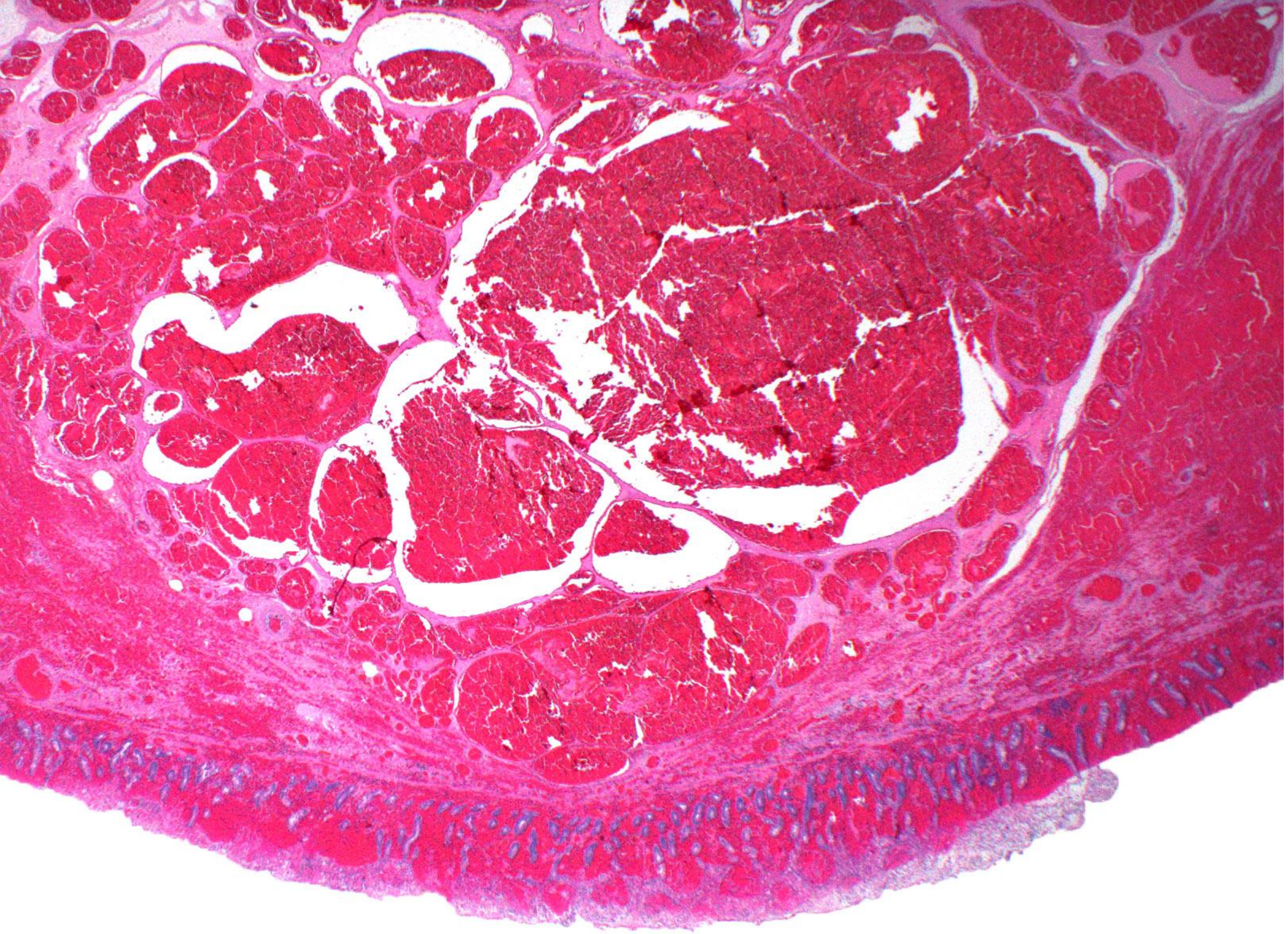
Contributor: Maodong Zhang and Ryan Dickinson

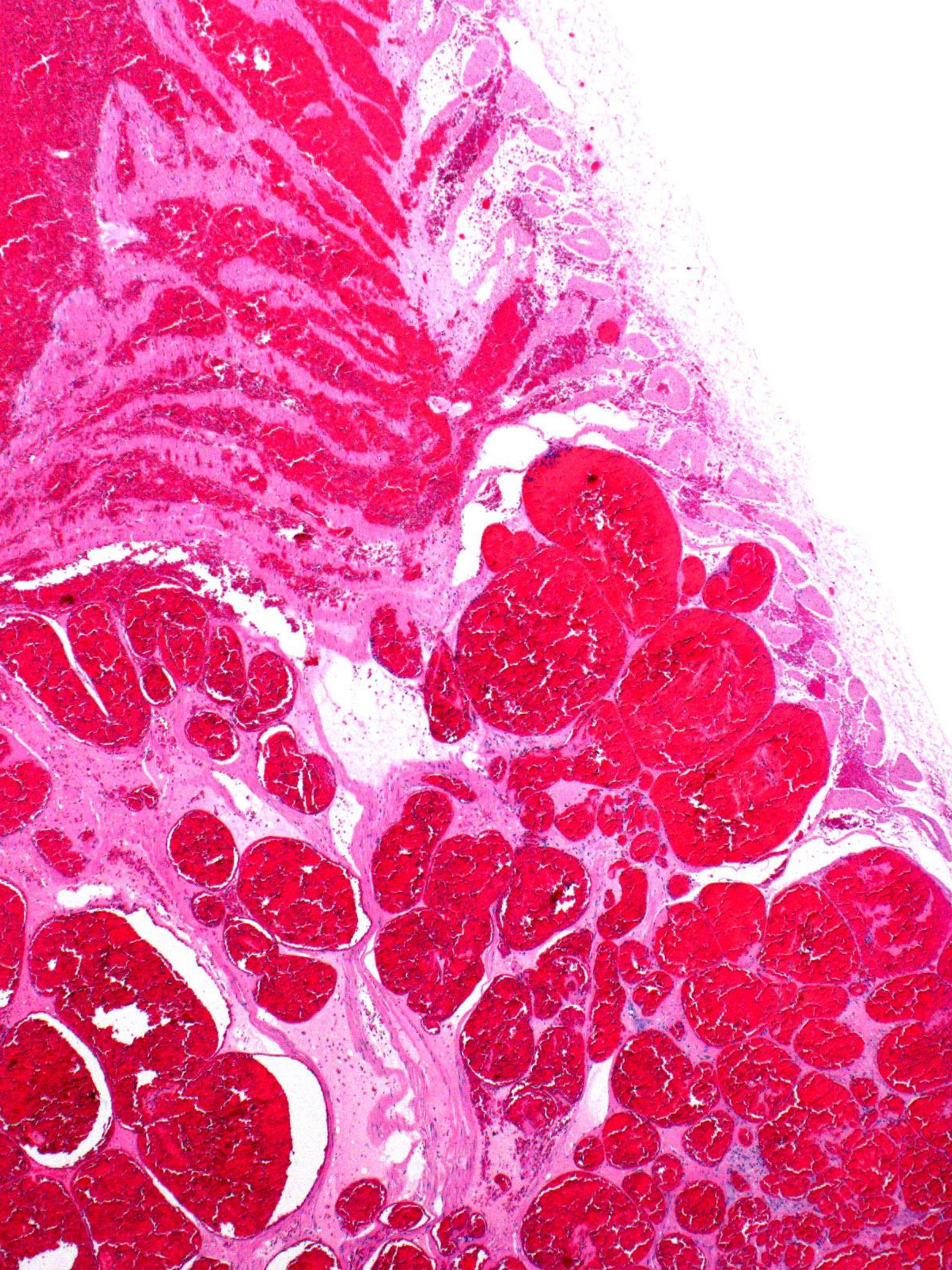
Disease and/or morphologic diagnosis:

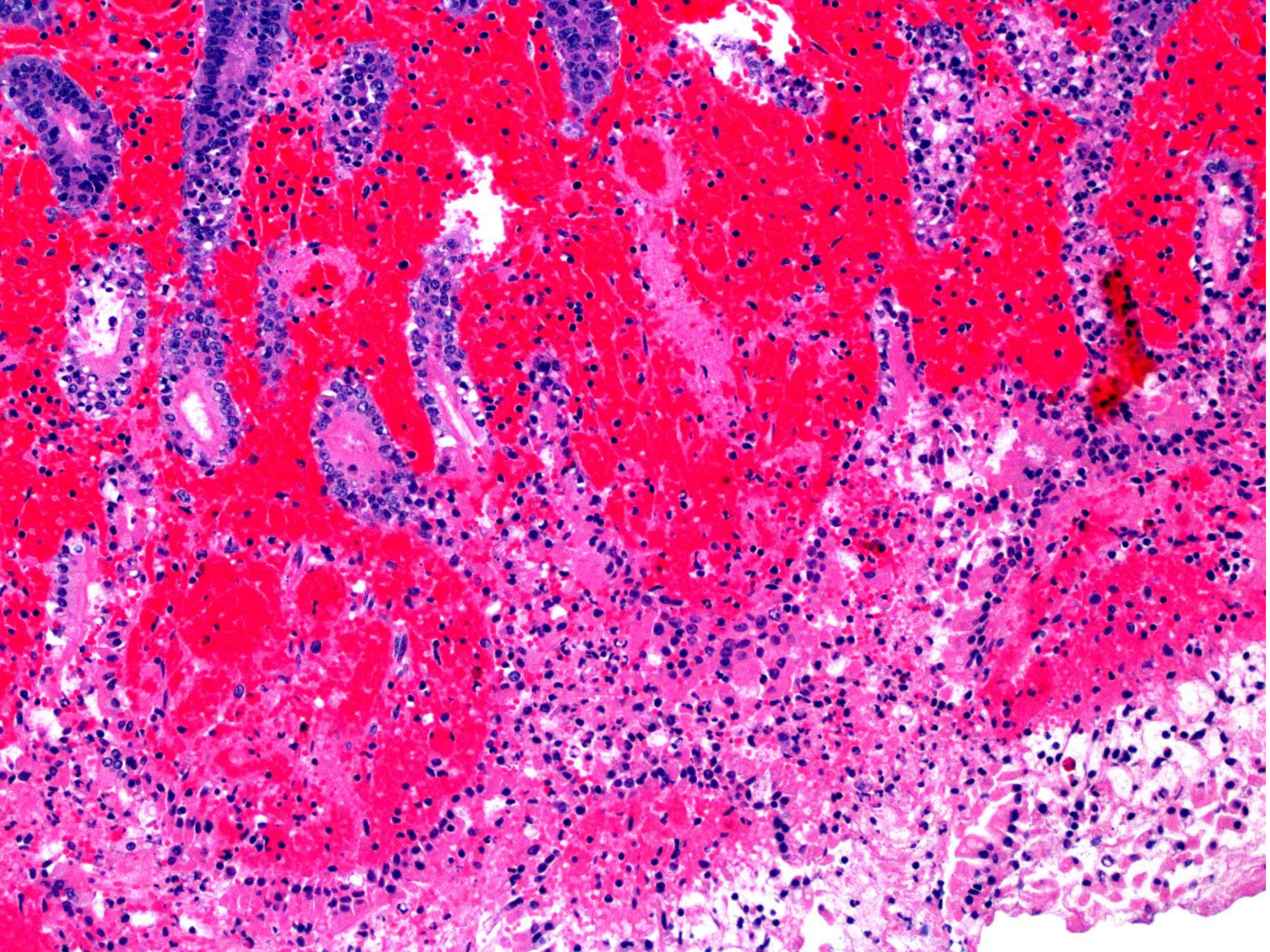
Intestinal angiomatosis

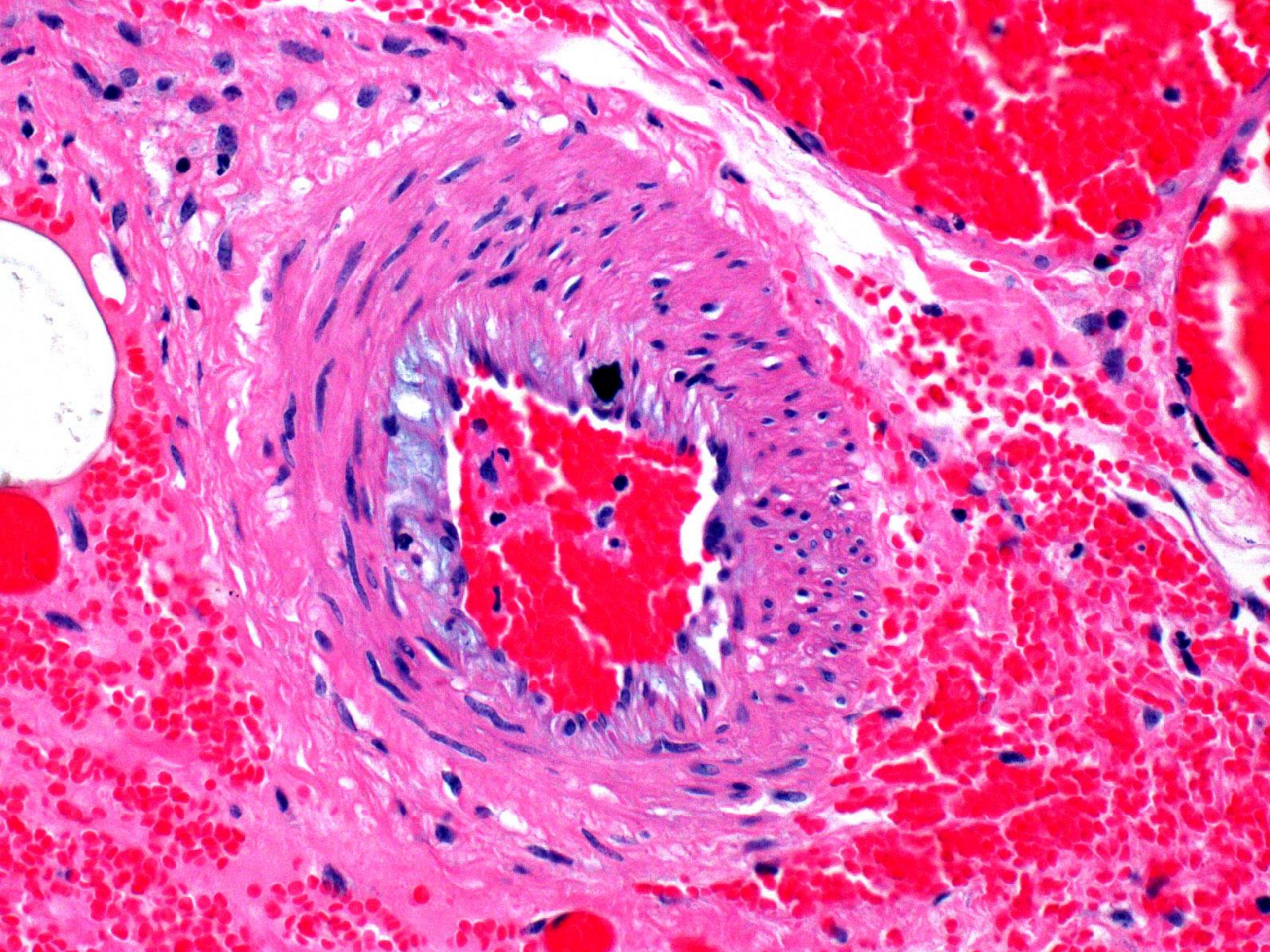
Etiology:

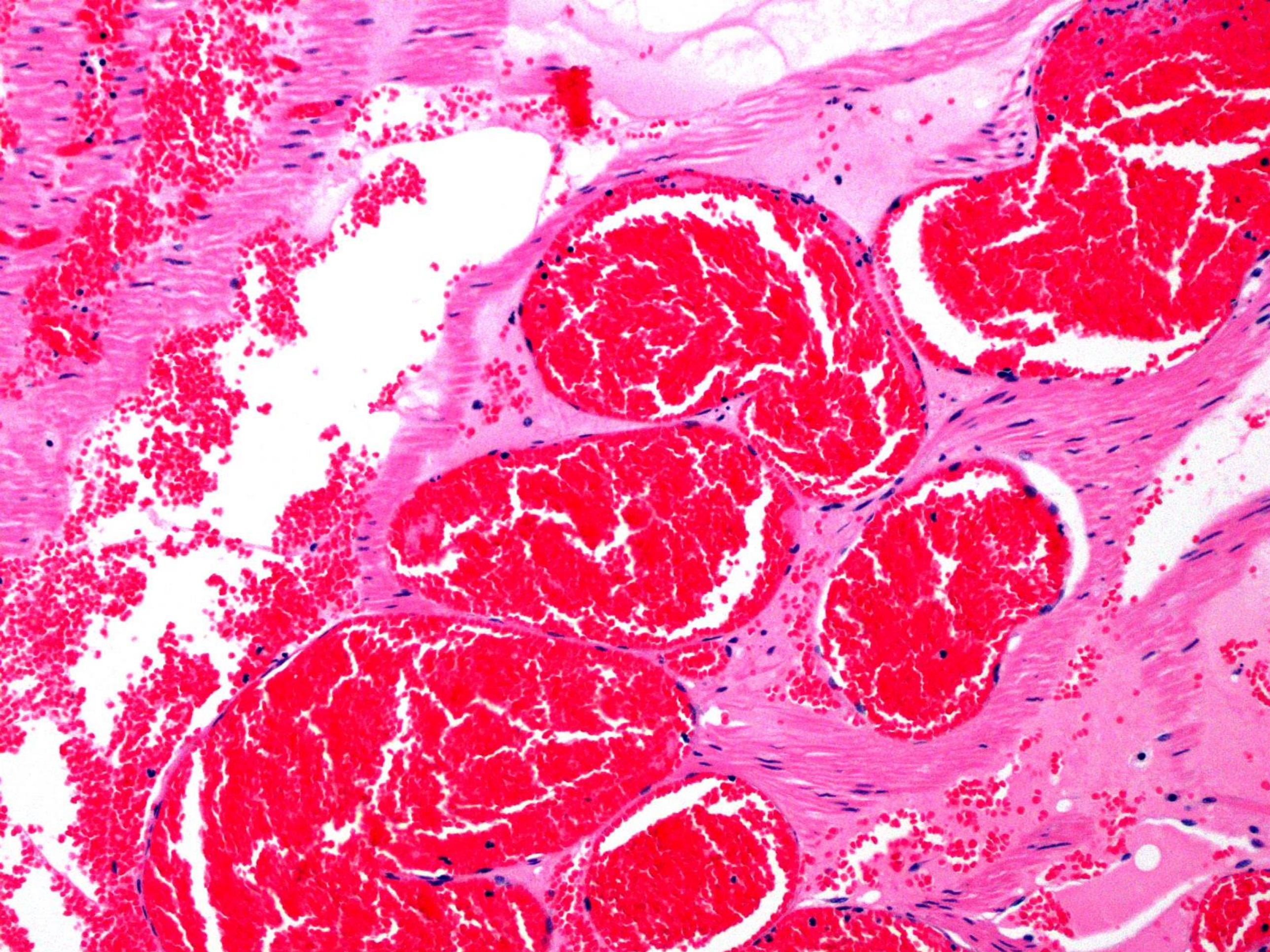
NA











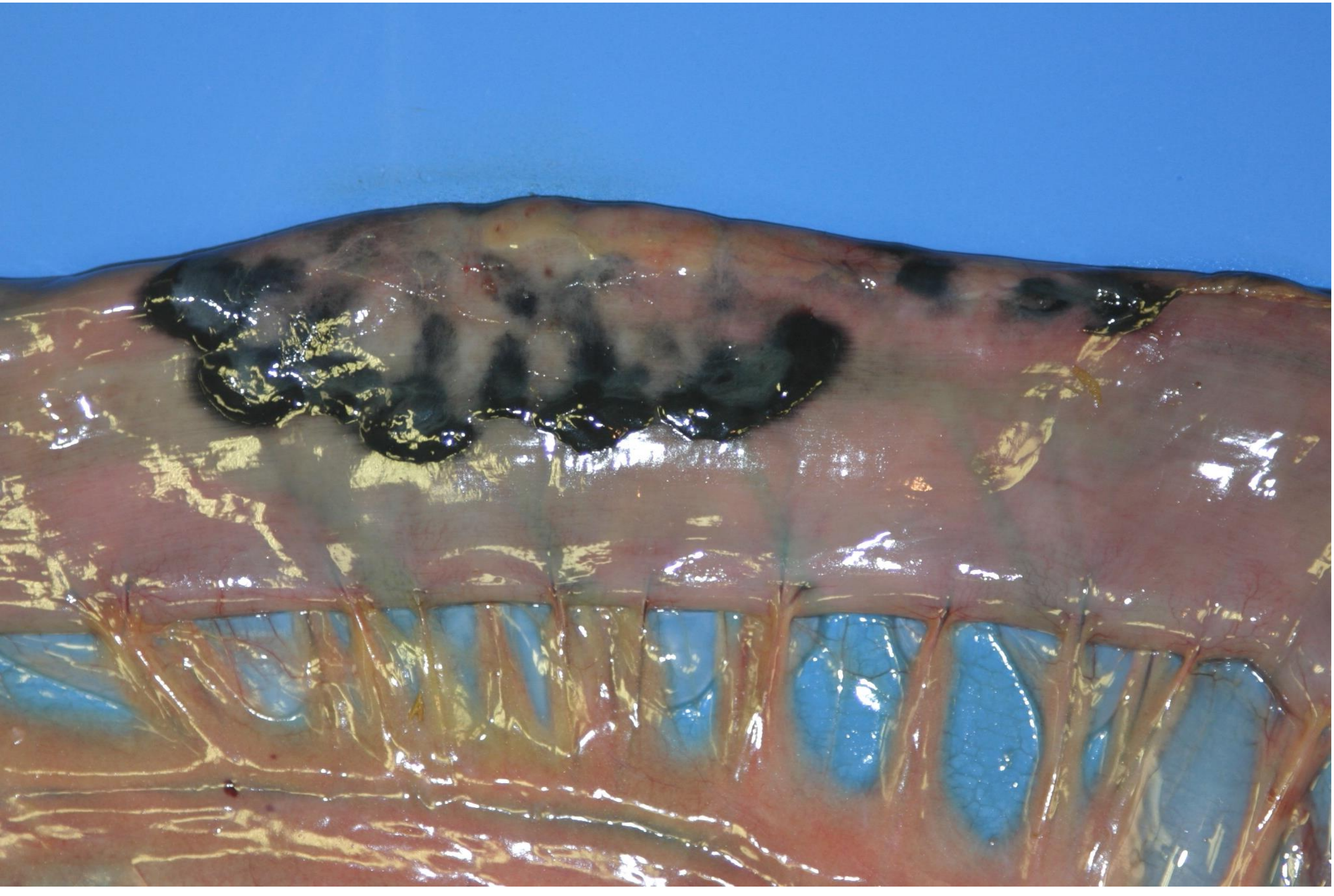
Vet Pathol **44**:386–388 (2007)

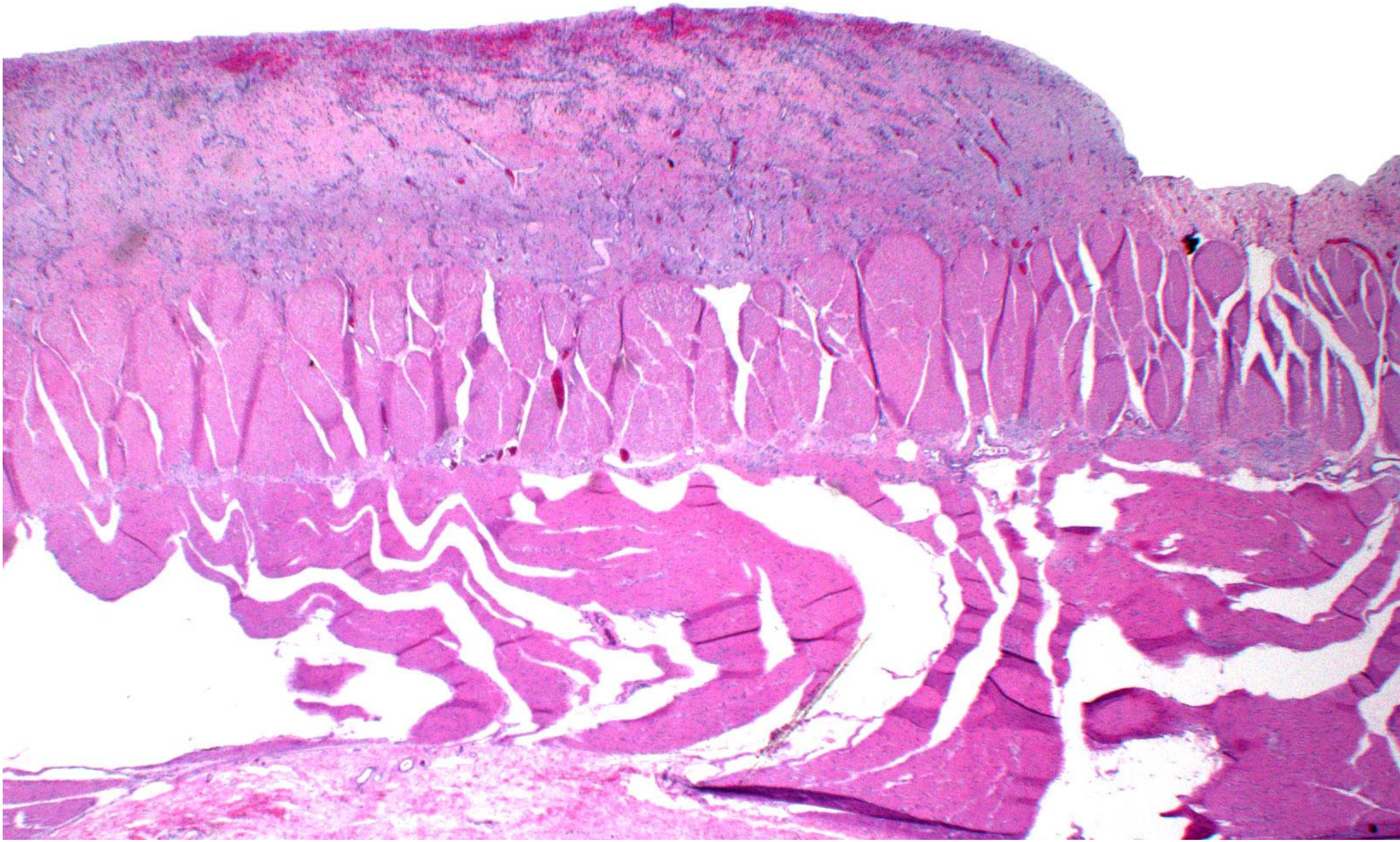
Ovarian and Intestinal Angiomatosis in a Horse

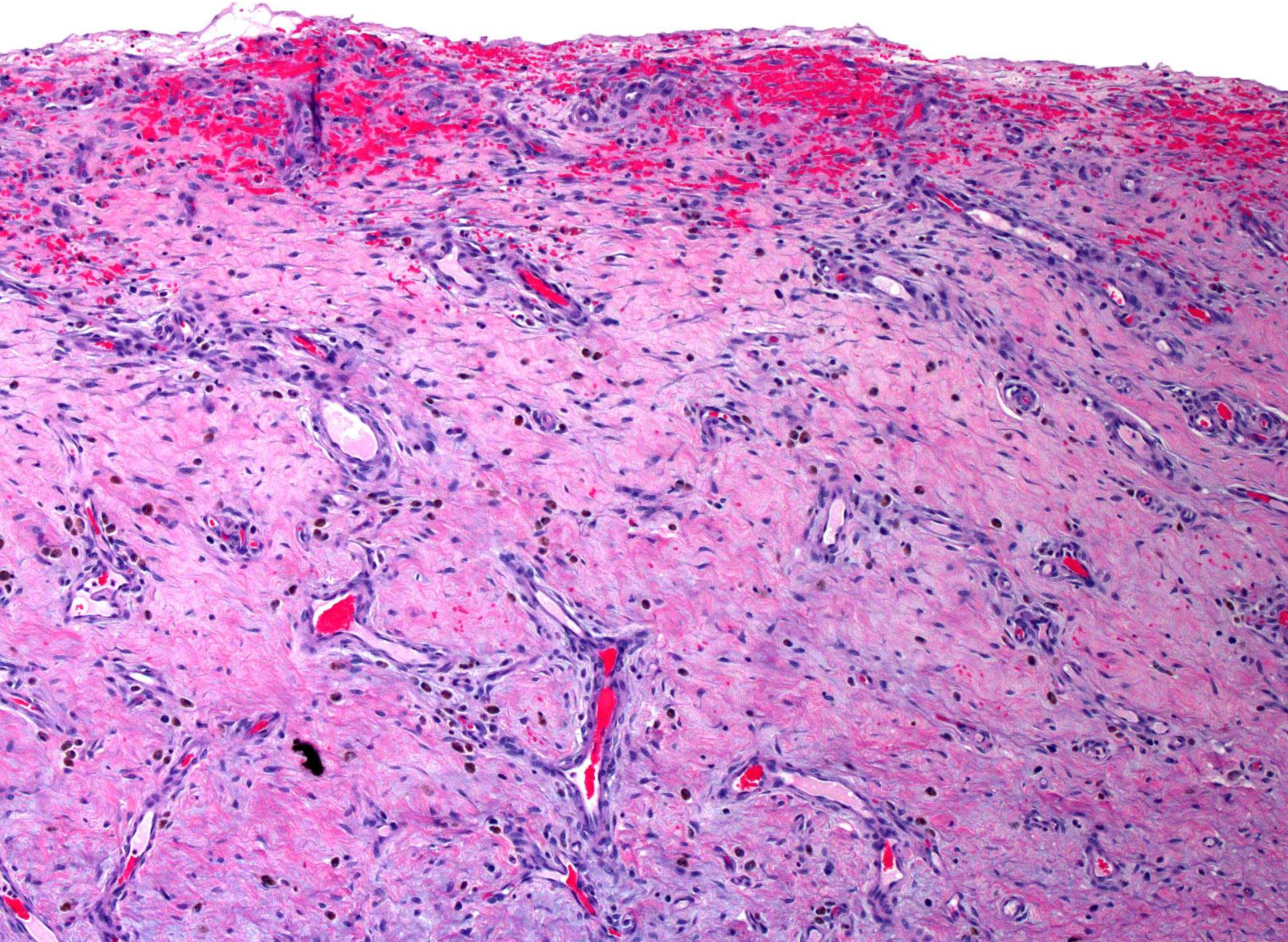
C. G. LAMM AND B. L. NJAA

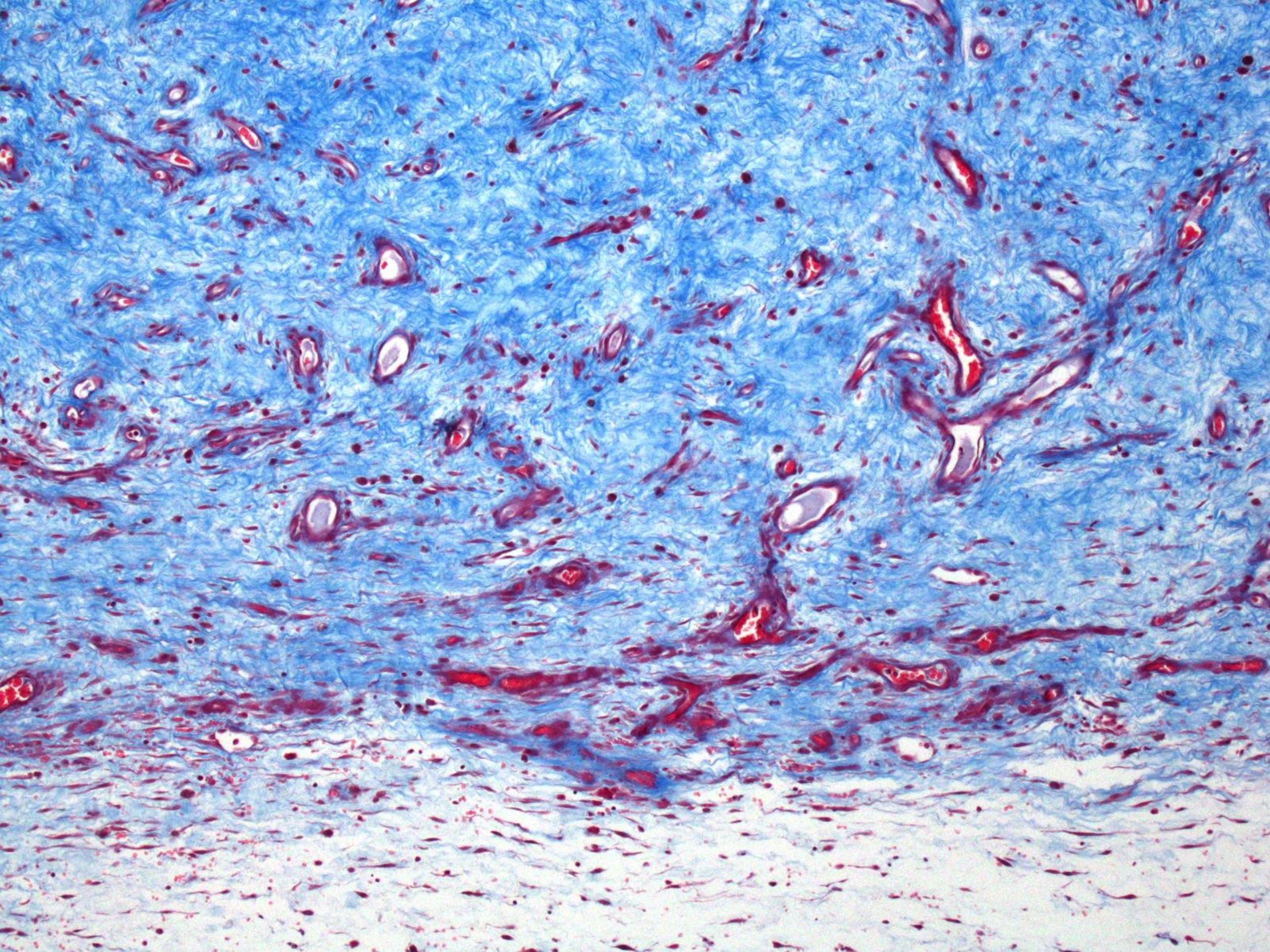
Oklahoma Animal Disease Diagnostic Laboratory, Oklahoma State University, Stillwater, OK (CL); Section of Pathology, Department of Biomedical Sciences, The College of Veterinary Medicine, Cornell University, Ithaca, New York (BN)

Abstract. Dozens of red, raised nodules scattered along the serosal surface of the small intestine and the right and left ovaries were observed as incidental findings on gross examination in a 21-year-old Thoroughbred mare euthanatized for severe lameness. Histologically, these nodules were composed of numerous, variably sized, redundant vascular profiles filled with red blood cells and fibrin thrombi. Based on the presence of multiple nodules composed of benign vascular channels scattered within the small intestine and ovary, a diagnosis of angiomatosis is proposed. To the authors' knowledge, this is the first report of small intestinal and ovarian angiomatosis in a horse.









Case 22

Jersey dairy calf

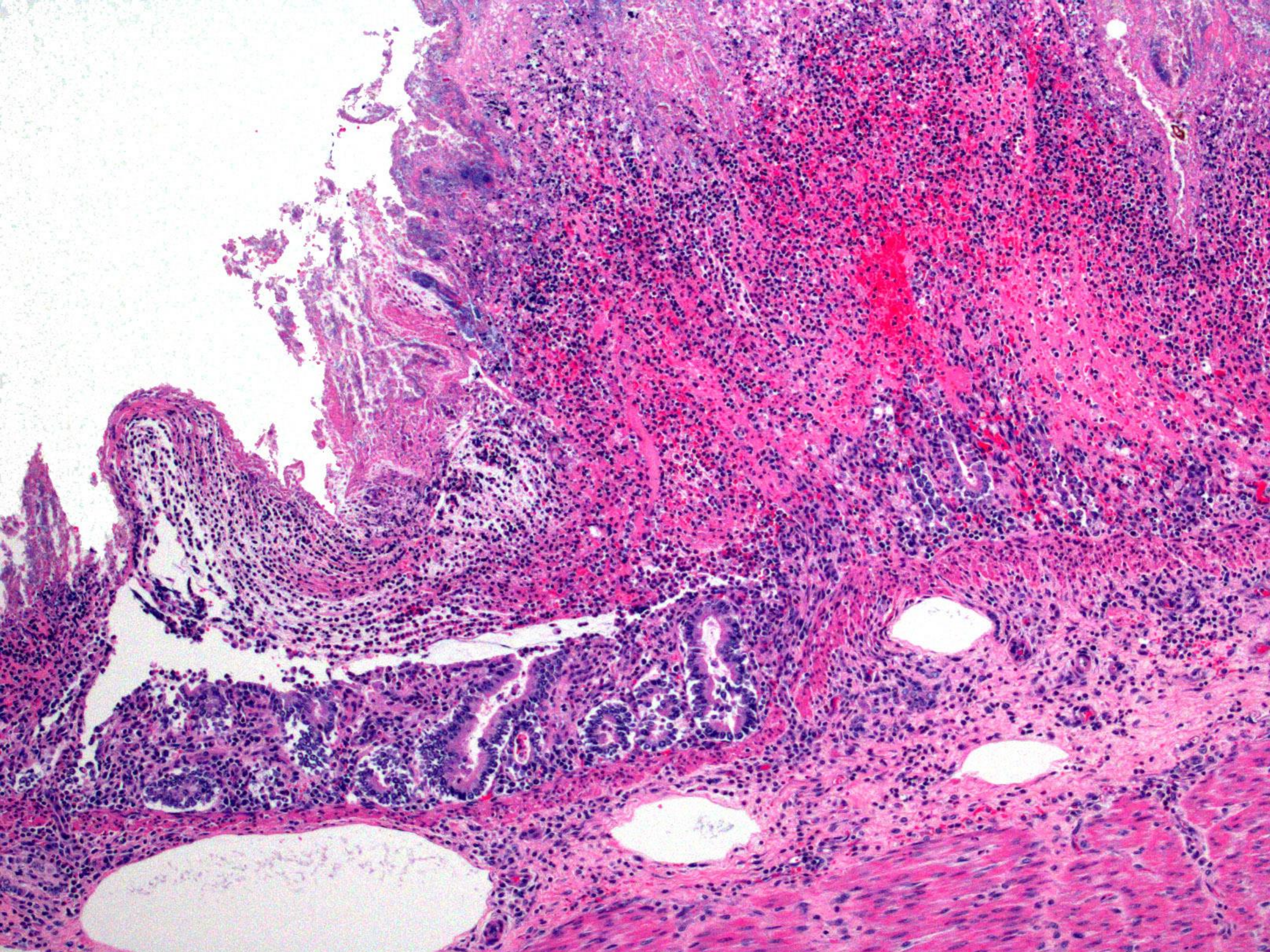
Contributor: Chrissy Eckstrand

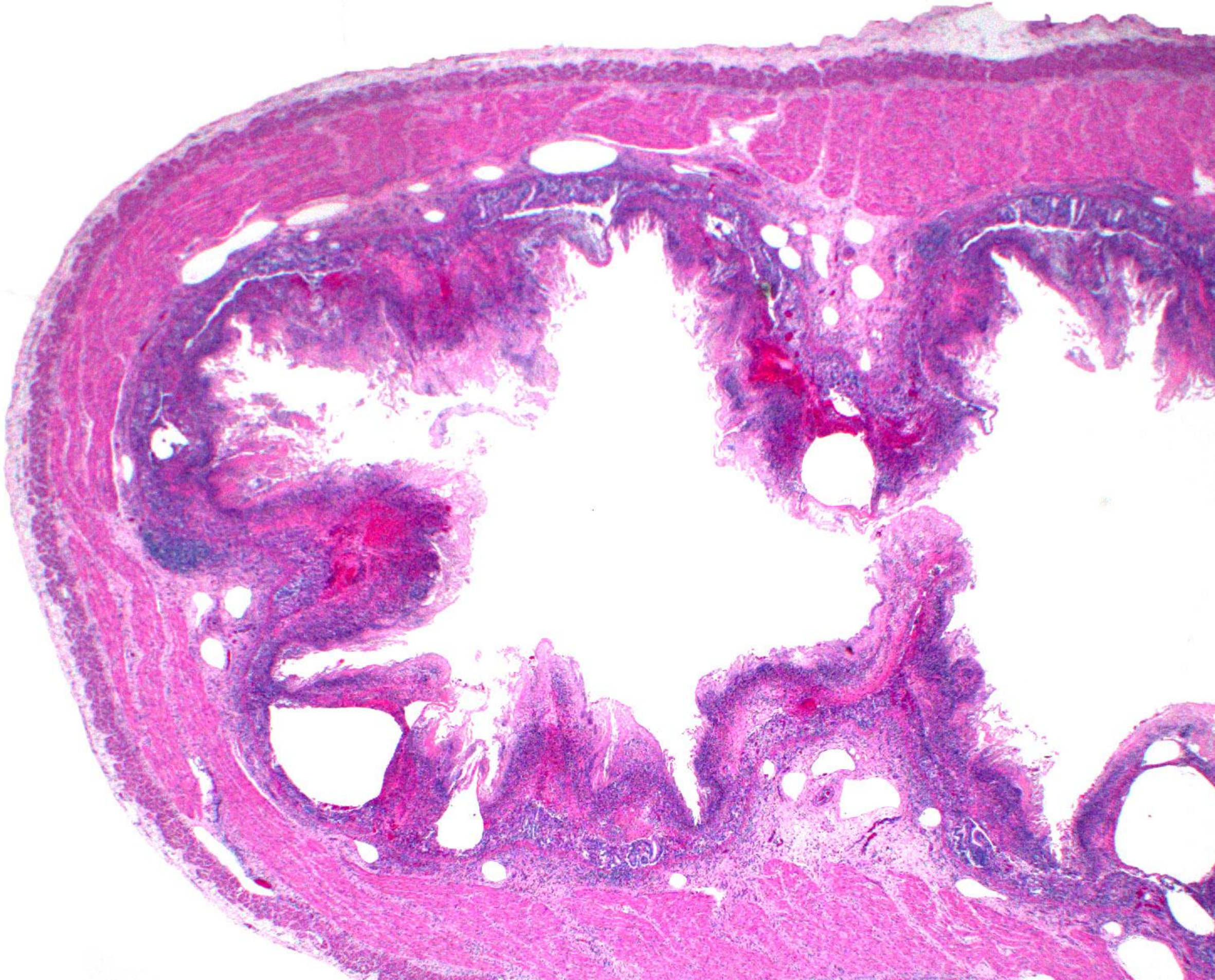
Disease and/or morphologic diagnosis:

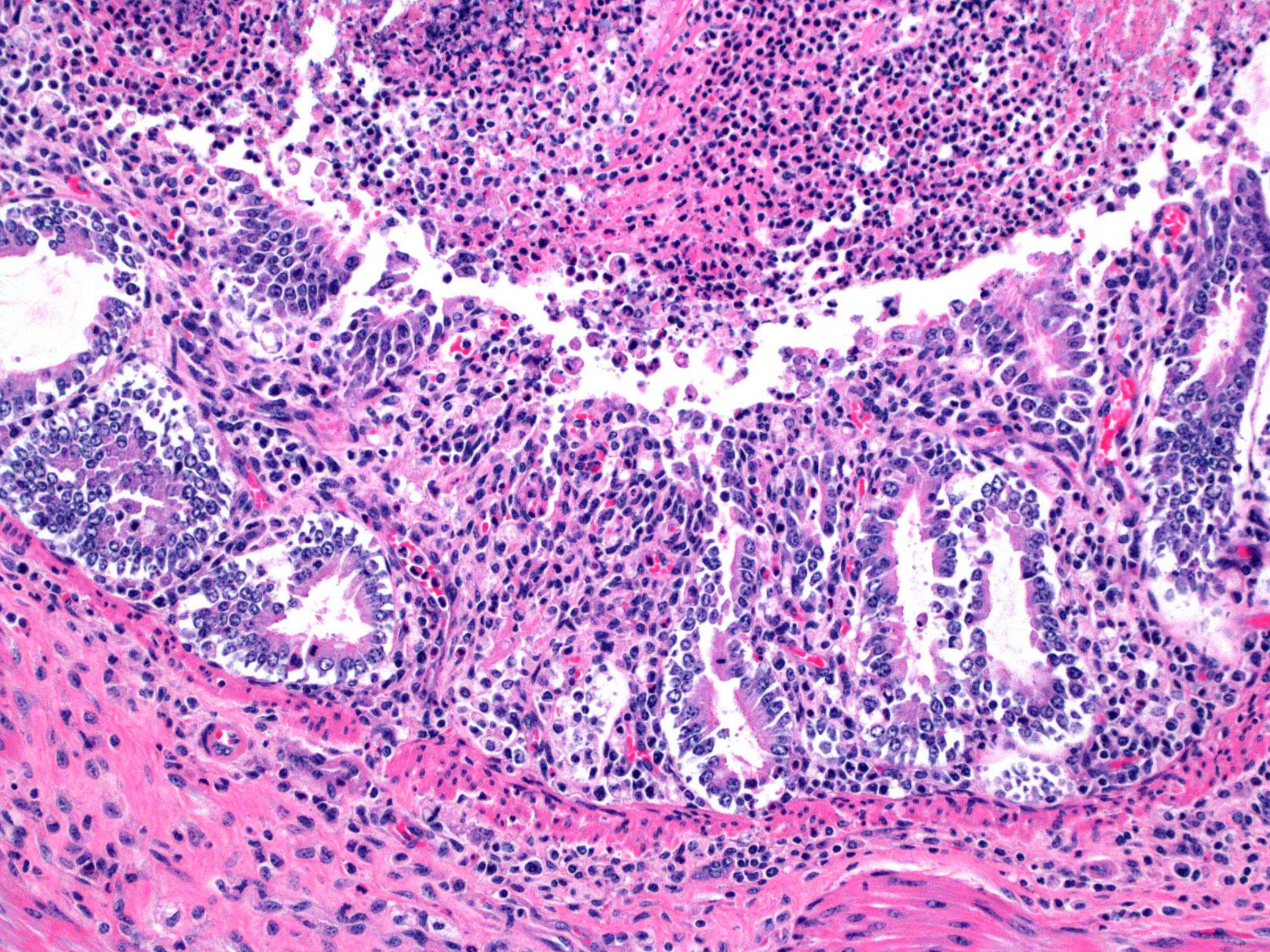
Idiopathic calf typhlocolitis

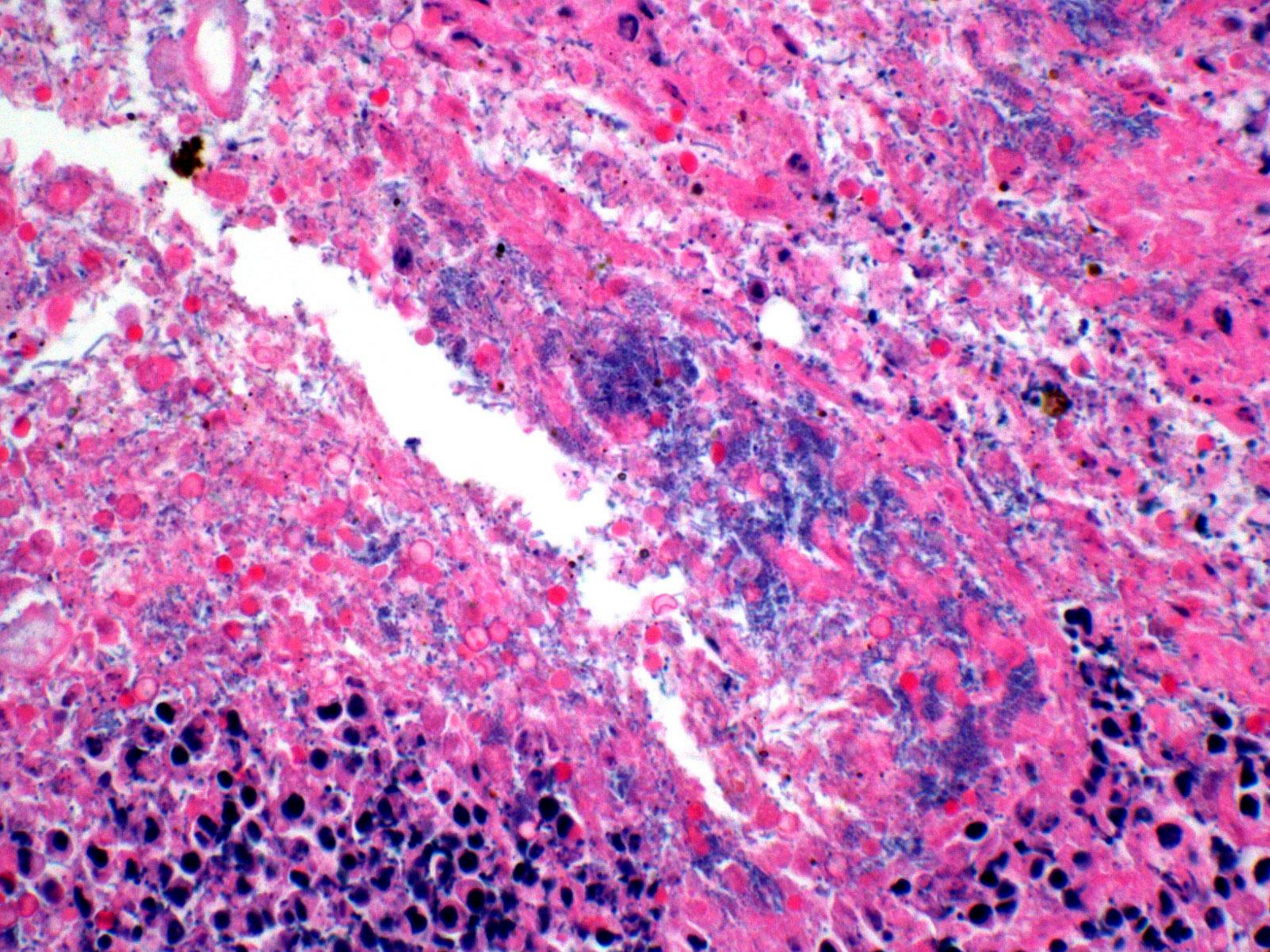
Etiology:

Undetermined









Case Reports

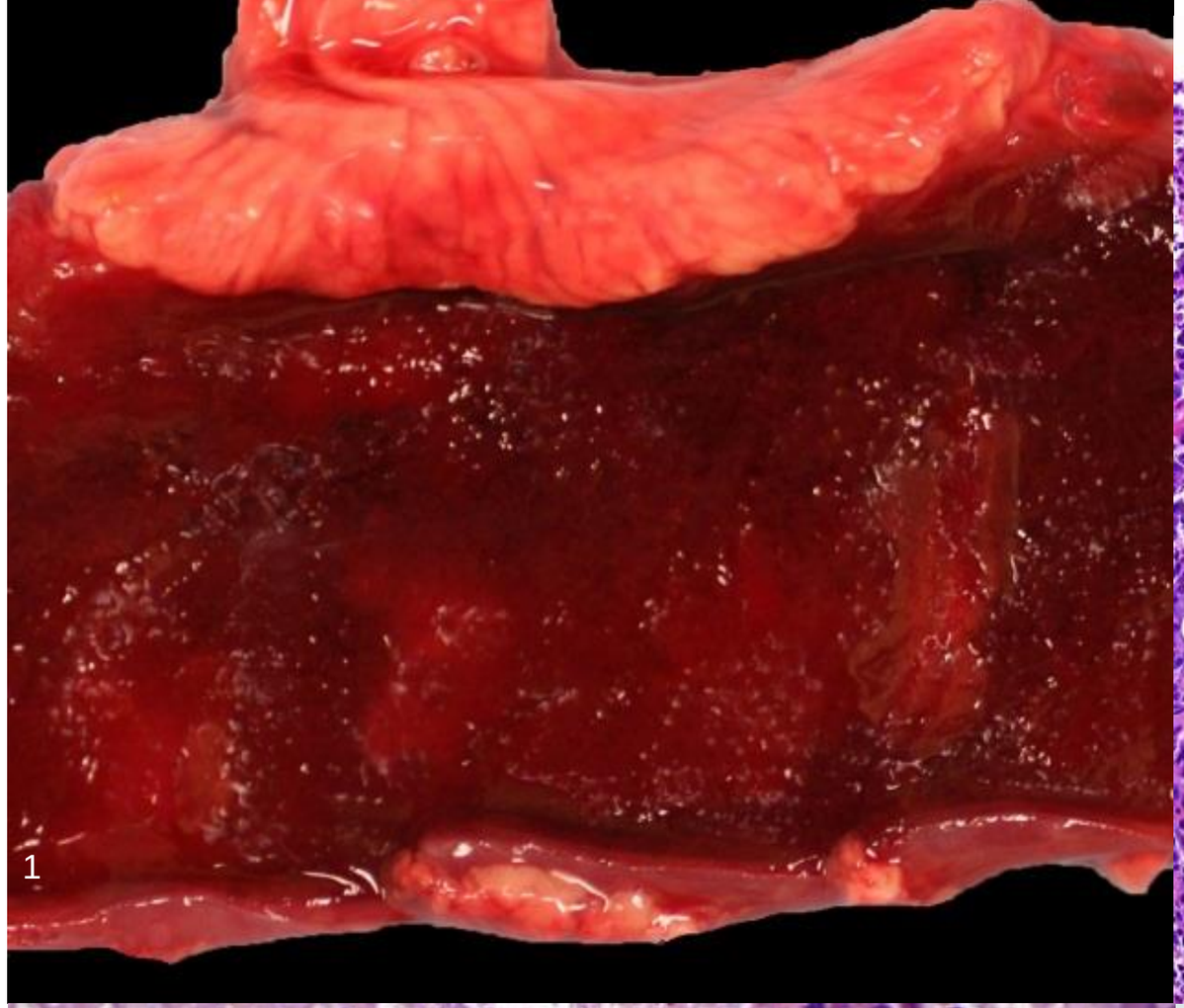
The pathology of enterotoxemia by *Clostridium perfringens* type C in calves

Jorge P. Garcia, Mark Anderson, Patricia Blanchard, Asli Mete, Francisco A. Uzal[1]

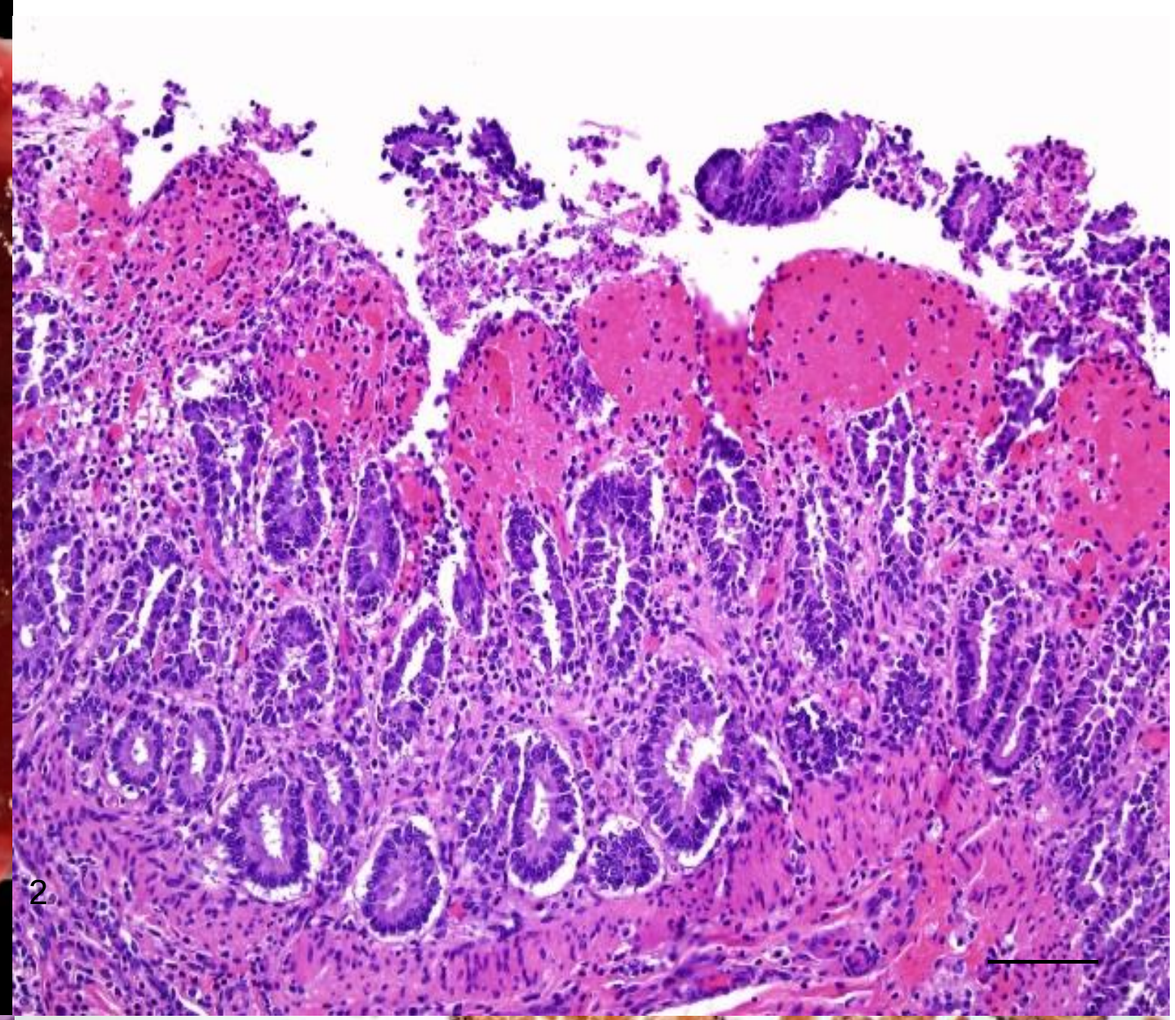
Journal of Veterinary Diagnostic Investigation
25(3) 438–442

DOI: 10.1177/1040638713483467
jvdi.sagepub.com

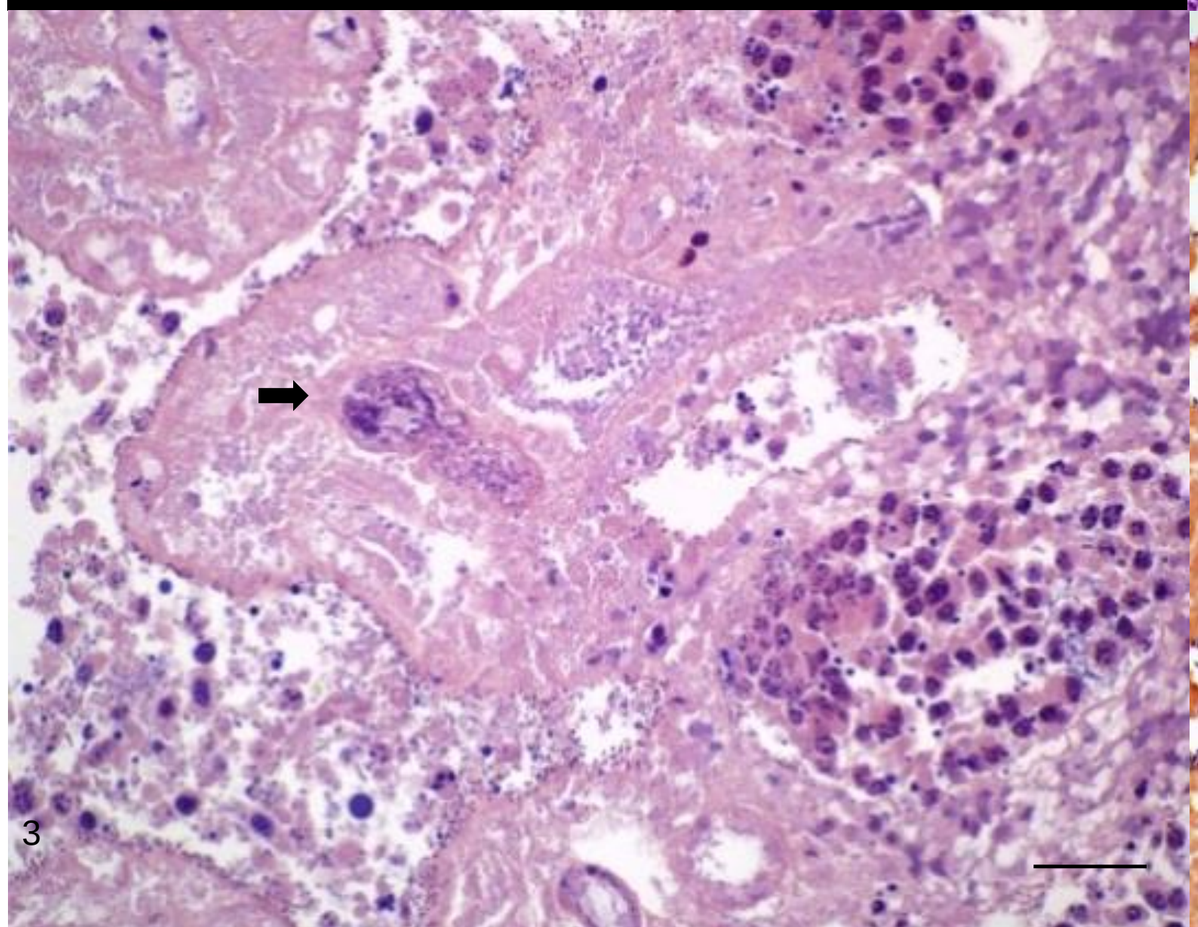
Abstract. The pathology of *Clostridium perfringens* type C infection has been described with detail only in foals and piglets. The current report describes the diagnostic workup and detailed pathology of 3 cases of *C. perfringens* type C infection in calves. A 2-day-old Jersey calf and fresh and fixed tissues from a 4-week-old Angus calf and from a 1-week-old Jersey calf were received at the California Animal Health and Food Safety Laboratory System with a history of digestive disease and death. The gross changes in the gastrointestinal tract of 1 calf consisted of multifocal subserosal hemorrhages of the rumen, diffuse congestion and multifocal hemorrhages of the small intestinal mucosa, and dilated cecum with bloody liquid contents. In a second calf, a large segment of small intestine was hemorrhagic. The small intestine of the third calf was dilated and filled with abundant yellow fluid content. Microscopically, all 3 calves had diffuse coagulation necrosis of the intestinal mucosa. *Clostridium perfringens*



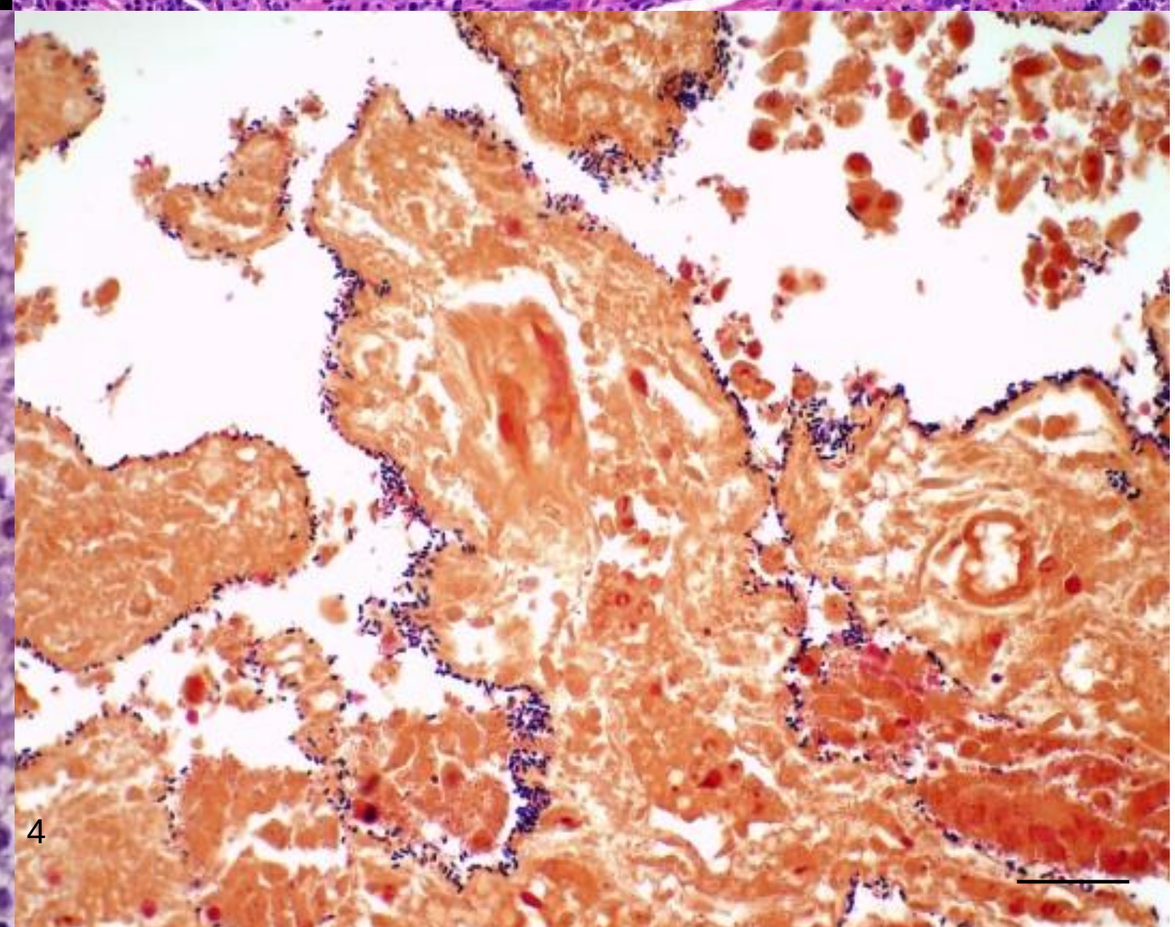
1



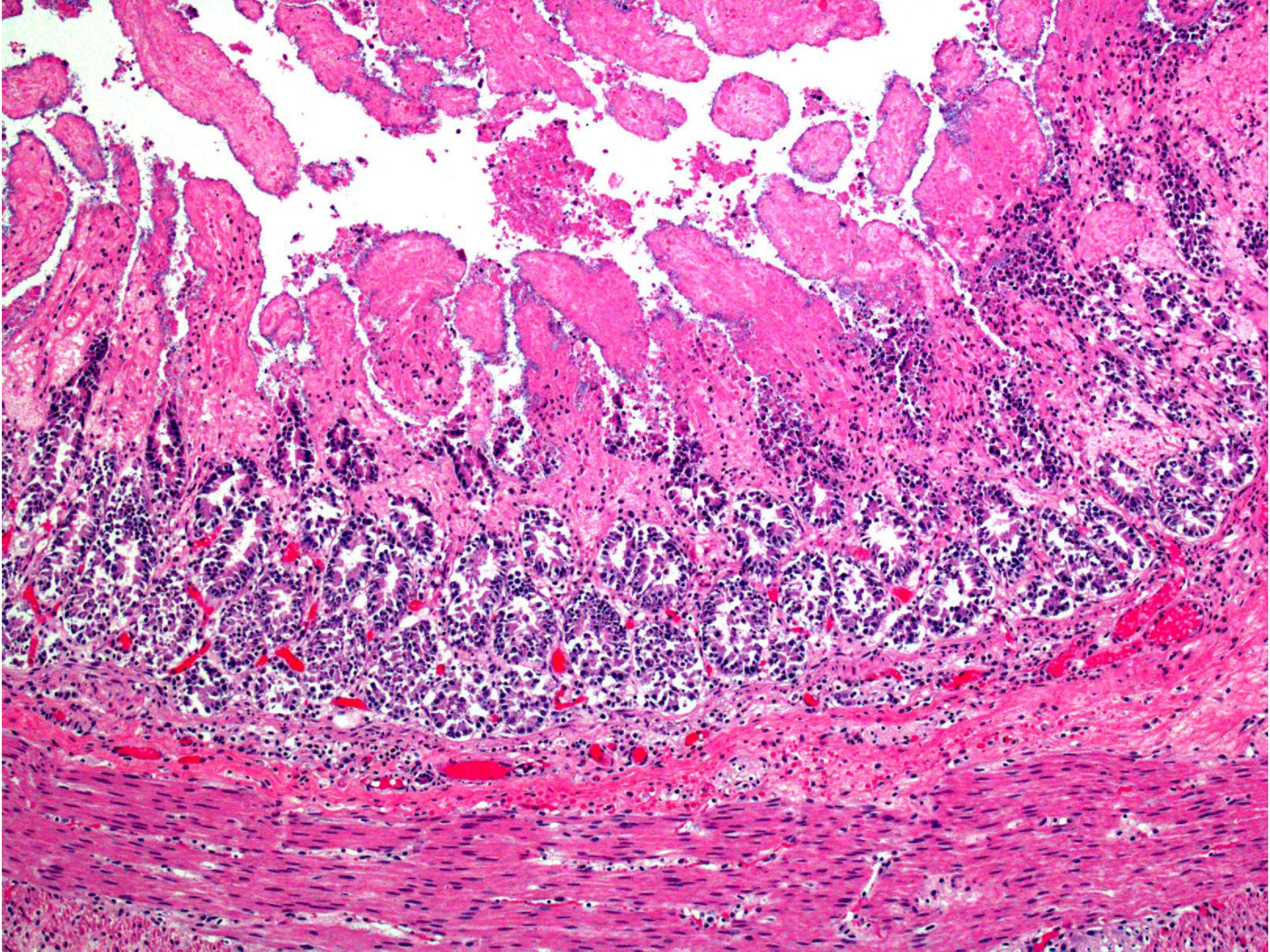
2



3



4



Case 25

Honeybee

Contributor: Colby Klein, Igor Medici de Mattos, Juliana Sartori Lunardi, Ivanna Kozii, Sarah Wood, Elemir Simko

Disease/morphologic diagnosis:

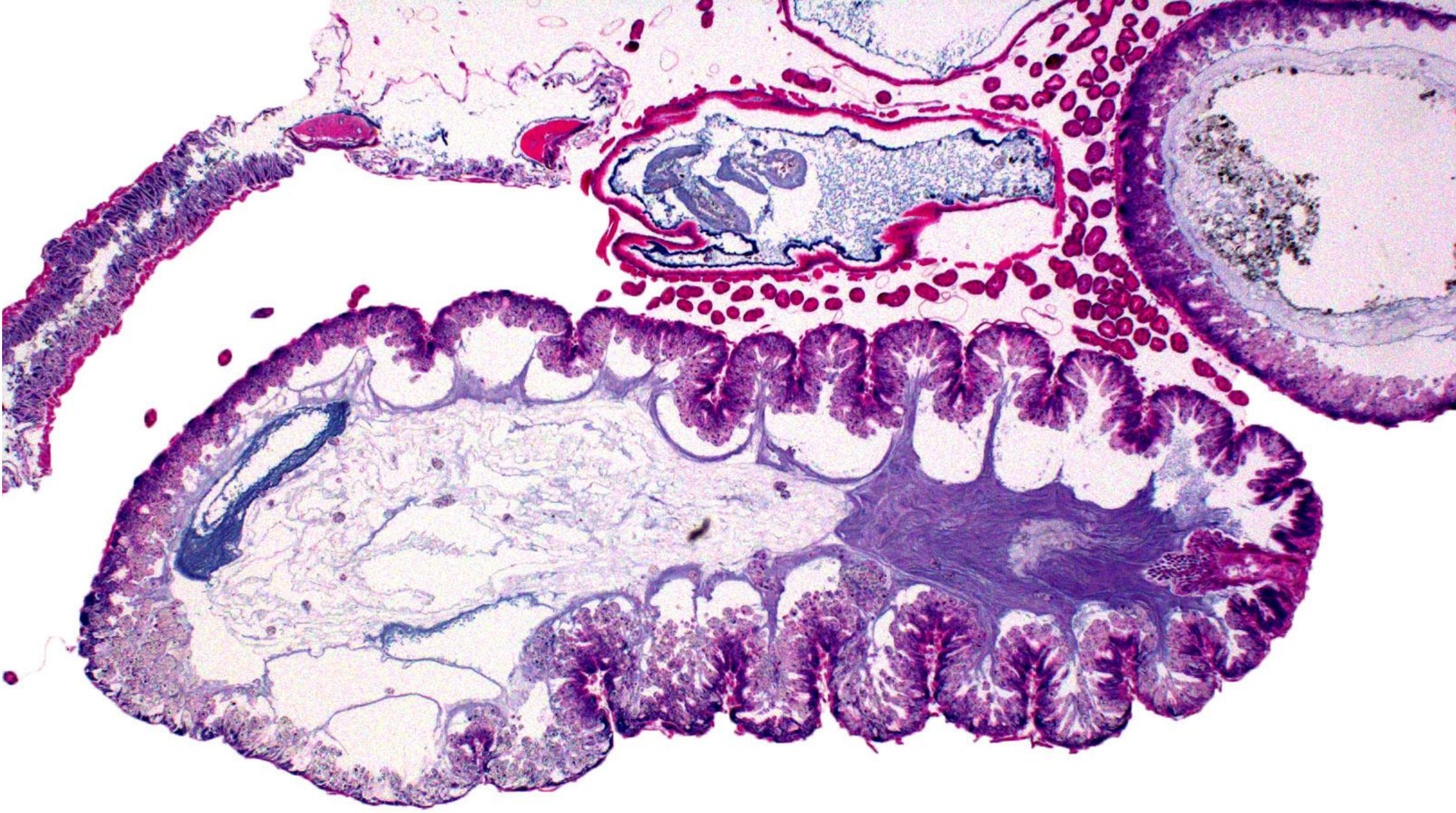
Proliferation, degeneration and necrosis of ventricular epithelium with intracellular microsporidian organisms (Nosemosis)

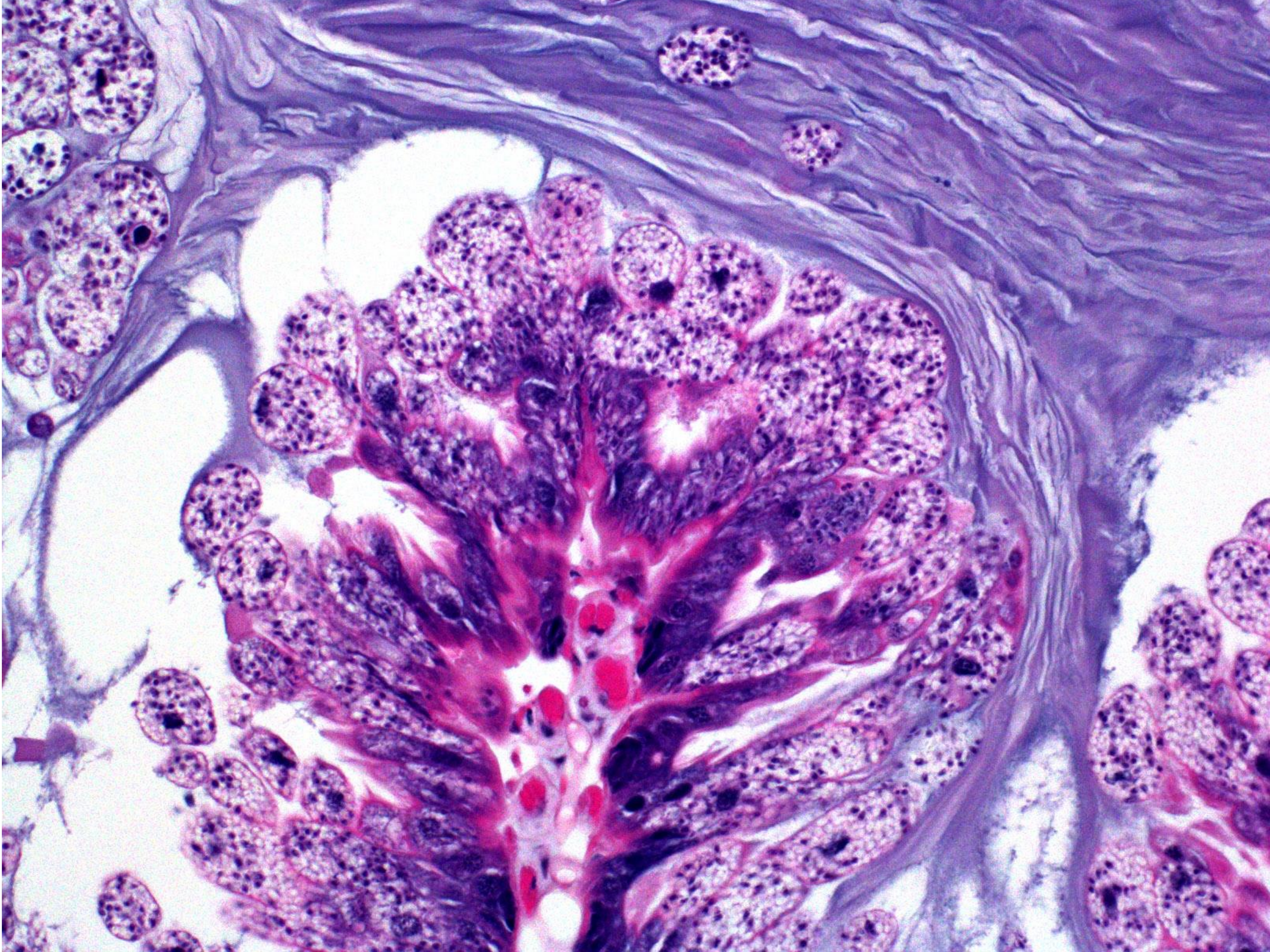
Etiology:

Nosema spp. (*N. apis* and *N. ceranae*)

A honeybee…

Really????





Original Article

Nosema apis and *Nosema ceranae* Tissue Tropism in Worker Honey Bees (*Apis mellifera*)

Veterinary Pathology
1-7

DOI: 10.1177/0300985819864302
journals.sagepub.com/home/vet

Mariano Higes[1], Pilar García-Palencia[2], Almudena Urbieta[1], Antonio Nanetti[3], and Raquel Martín-Hernández[1,4]

Abstract

The microsporidia *Nosema apis* and *Nosema ceranae* are major honey bee pathogens that possess different characteristics in terms of the signs they produce, as well as disease development and transmission. Although the ventricular epithelium is generally considered the target tissue, indirect observations led to speculation that *N. ceranae* may also target other structures, possibly explaining at least some of the differences between these 2 species. To investigate the tropism of *Nosema* for honey bee tissues, we performed controlled laboratory infections by orally administering doses of 50 000 or 100 000 fresh mature spores of either species. The fat body was isolated from the infected bees, as well as organs from the digestive (esophagus, ventriculus, ileum, rectum), excretory (Malpighian tubules), circulatory (aorta, heart), respiratory (thoracic tracheas), exocrine (hypopharyngeal,

Case 26

Honebee

Contributor: Sarah Wood

As I said before……

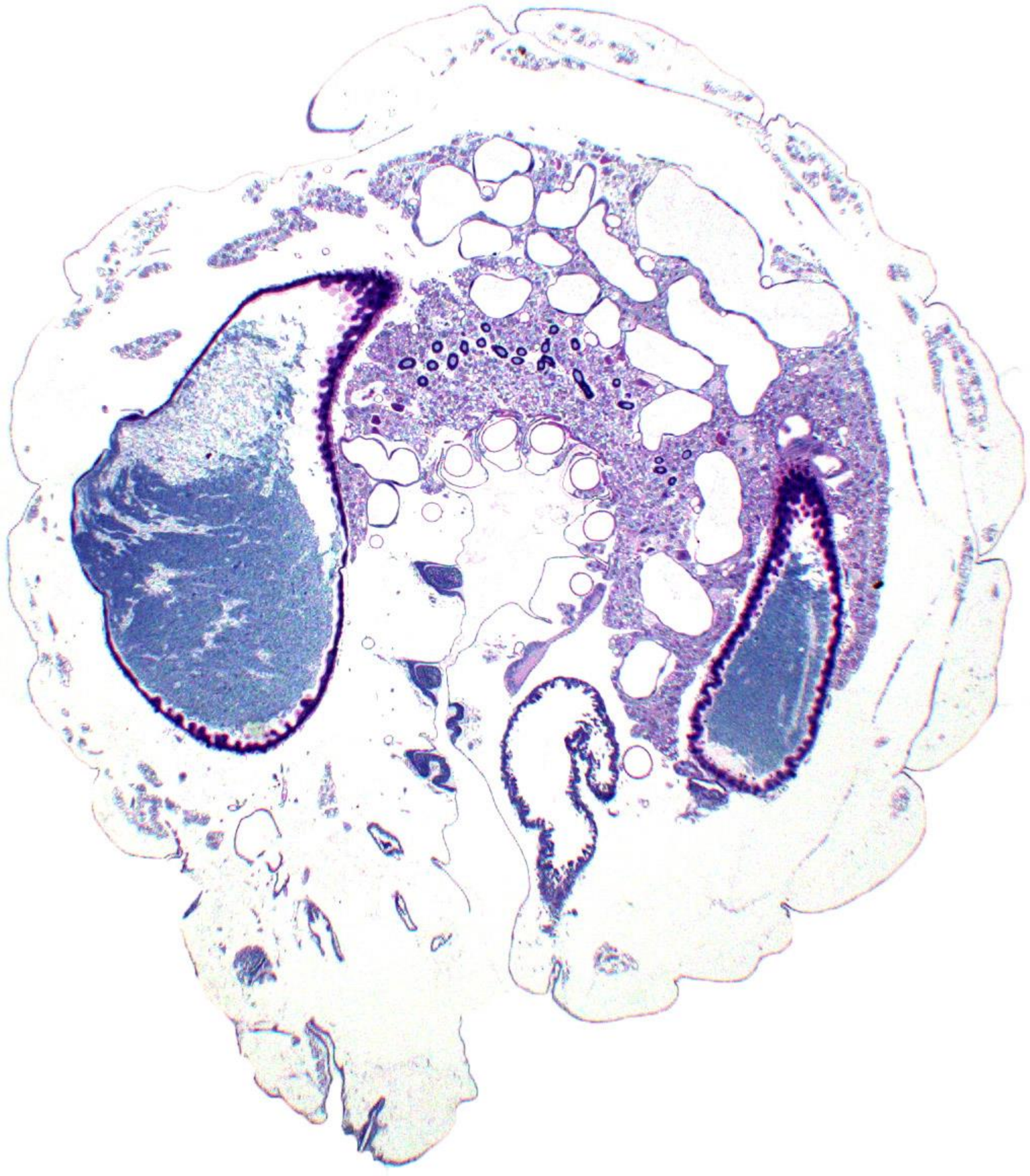
Really????

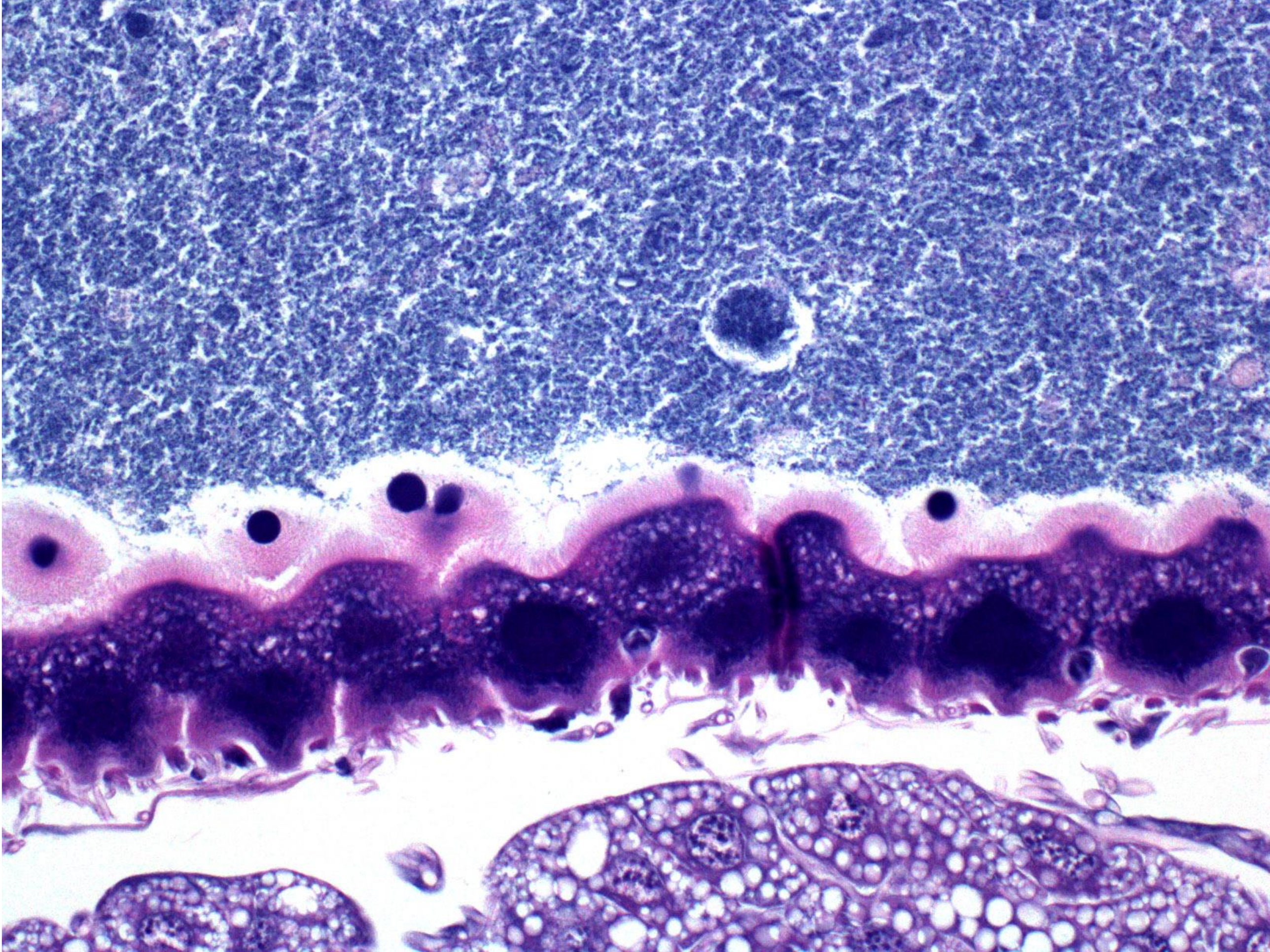
Disease/morphologic diagnosis:

European fouldbrood

Etiology:

Melissococcus plutonius





FULL PAPER *Bacteriology*

Infection of *Melissococcus plutonius* clonal complex 12 strain in European honeybee larvae is essentially confined to the digestive tract

Daisuke TAKAMATSU[1,2)]*,**, Masumi SATO[3)]** and Mikio YOSHIYAMA[4)]**

[1)]*Bacterial and Parasitic Diseases Research Division, National Institute of Animal Health, National Agriculture and Food Research Organization, 3–1–5 Kannondai, Tsukuba, Ibaraki 305–0856, Japan*
[2)]*The United Graduate School of Veterinary Sciences, Gifu University, 1–1 Yanagido, Gifu, Gifu 501–1193, Japan*
[3)]*Pathology and Pathophysiology Research Division, National Institute of Animal Health, National Agriculture and Food Research Organization, 3–1–5 Kannondai, Tsukuba, Ibaraki 305–0856, Japan*
[4)]*Honey Bee Research Unit, Animal Breeding and Reproduction Research Division, NARO Institute of Livestock and Grassland Science, National Agriculture and Food Research Organization, 2 Ikenodai, Tsukuba, Ibaraki 305–0901, Japan*

(Received 6 July 2015/Accepted 27 July 2015/Published online in J-STAGE 8 August 2015)

ABSTRACT. *Melissococcus plutonius* is an important pathogen that causes European foulbrood (EFB) in honeybee larvae. Recently, we discovered a group of *M. plutonius* strains that are phenotypically and genetically distinct from other strains. These strains belong to clonal complex (CC) 12, as determined by multilocus sequence typing analysis, and show atypical cultural and biochemical characteristics *in vitro* compared with strains of other CCs tested. Although EFB is considered to be a purely intestinal infection according to early studies, it is

doi: 10.1292/jvms.15-0405; *J. Vet. Med. Sci.* 78(1): 29–34, 2016

Available online at www.sciencedirect.com

ScienceDirect

Current Opinion in Insect Science

Bacterial pathogens of bees

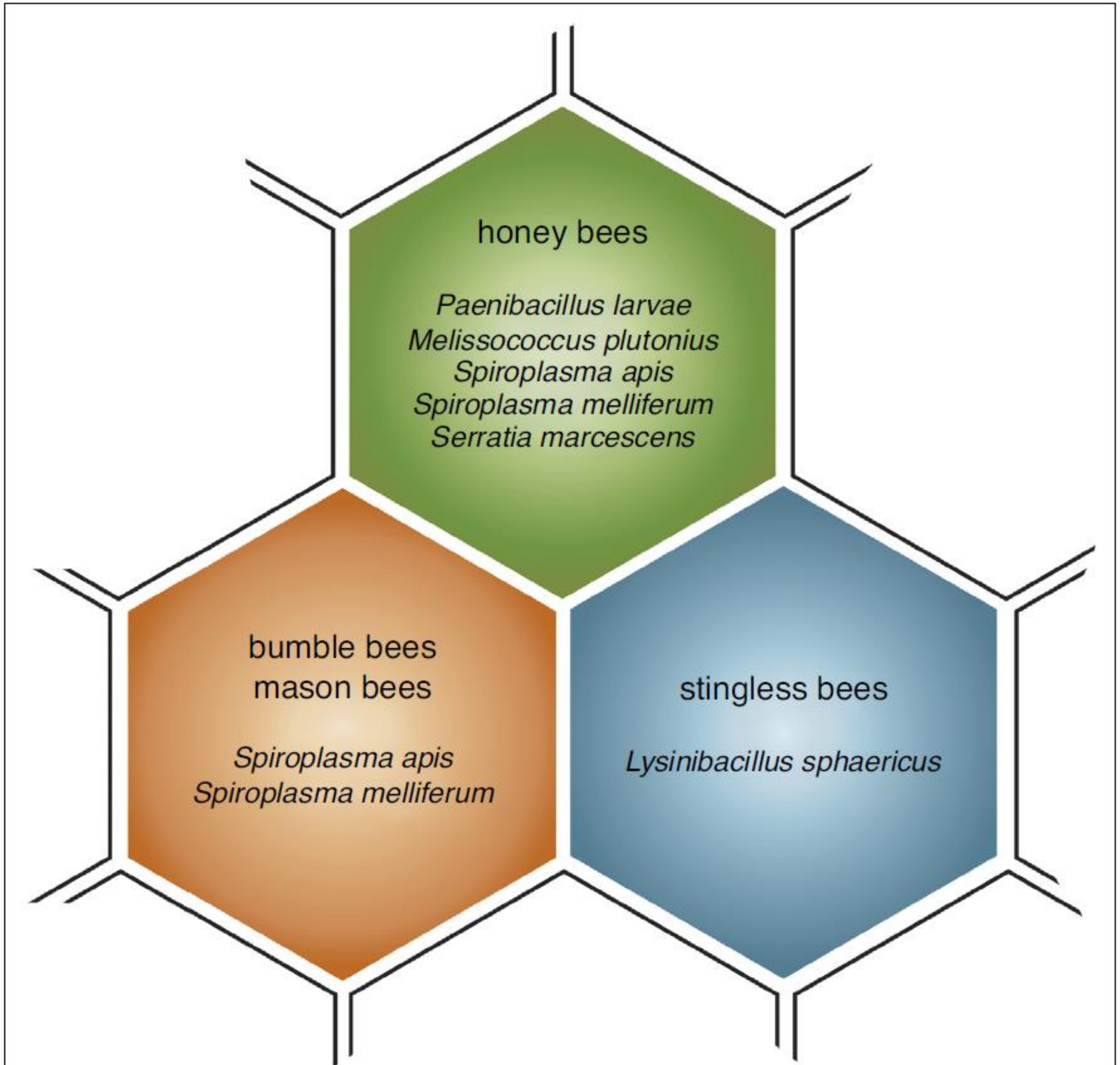
Anne Fünfhaus[1], Julia Ebeling[1] and Elke Genersch[1,2]

Pollination is an indispensable ecosystem service provided by many insects, especially by wild and managed bee species. Hence, reports on large scale honey bee colony losses and on population declines of many wild bees were alarming and resulted in increased awareness of the importance of bee health and increased interest in bee pathogens. To serve this interest, this review will give a comprehensive overview on bacterial bee pathogens by covering not only the famous pathogens (*Paenibacillus larvae*, *Melissococcus plutonius*), but also the orphan pathogens which have largely been neglected by the scientific community so far (spiroplasmas) and the pathogens which were only recently discovered as being pathogenic to bees (*Serratia marcescens*, *Lysinibacillus sphaericus*).

Addresses
[1] Institute for Bee Research, Department of Molecular Microbiology and Bee Diseases, Friedrich-Engels-Str. 32, 16540 Hohen Neuendorf,

worldwide [1,4••,5] and in the exploitation of alternative bee species to be established as commercial pollinators in some geographic areas or for specialized crops and cultivation conditions. In the neotropic ecozone, managed stingless bees of the genus *Melipona* are the dominantly used insect pollinators in the open field [6,7]. For pollination in alfalfa and blueberry fields or in orchards, mass-reared leaf-cutting bees (*Megachile rotundata*) or mason bees (*Osmia* spp.), respectively, are employed [8–10]. Pollination in greenhouses is best achieved by bumble bees which are also mass-reared and commercially available for this purpose [11,12]. The unquestionable advantage of mass reared and managed bees for agriculture is that they can be and are transported or delivered to wherever pollination service is requested and thus they can temporarily make up for the reported loss of other pollinating insects [13,14].

Current Opinion in Insect Science 2018, 26:89–96


honey bees
Paenibacillus larvae
Melissococcus plutonius
Spiroplasma apis
Spiroplasma melliferum
Serratia marcescens
bumble bees
mason bees
Spiroplasma apis
Spiroplasma melliferum
stingless bees
Lysinibacillus sphaericus
Current Opinion in Insect Science

Case 27

Bison

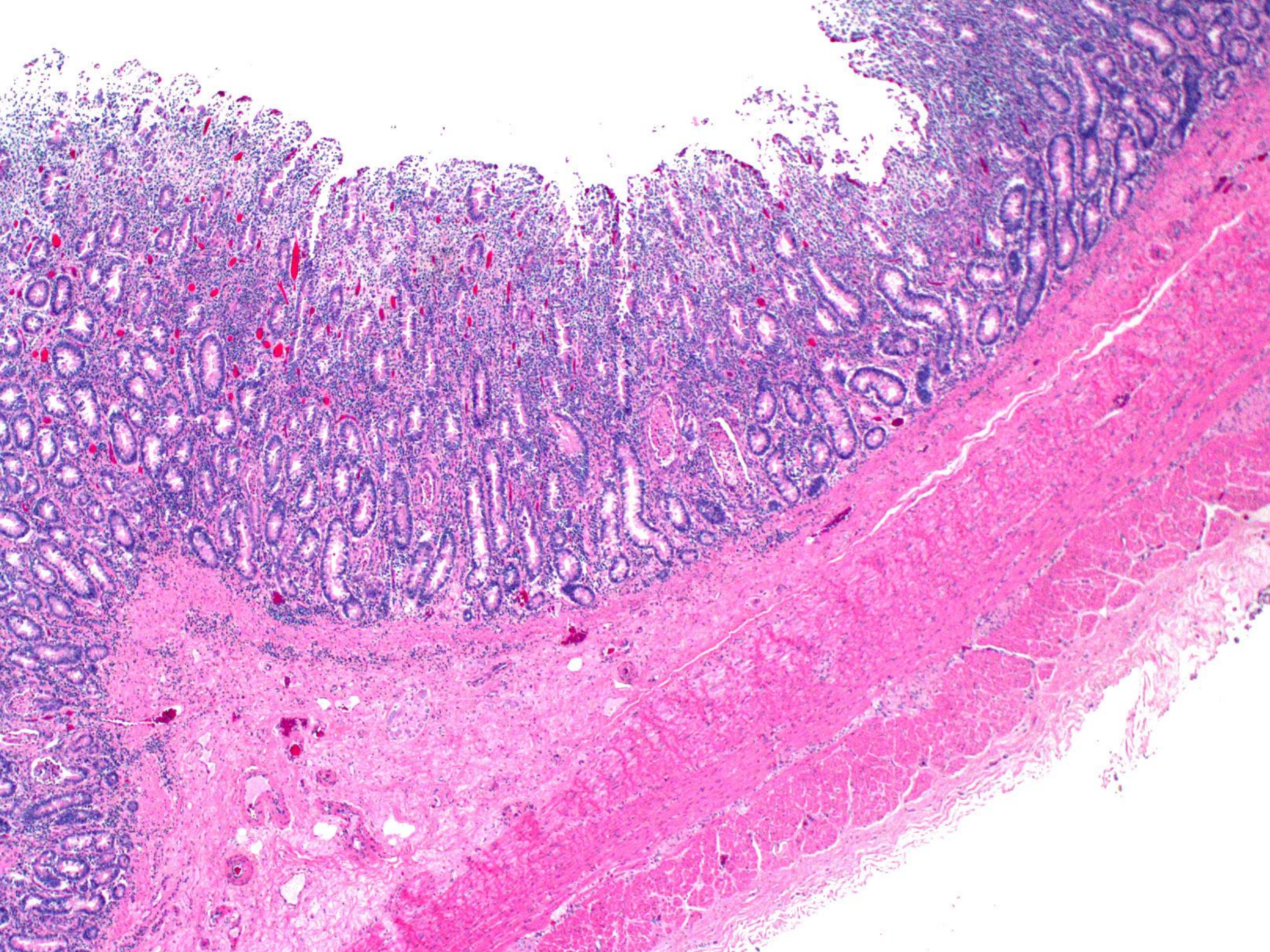
Contributor: Shelagh Copeland

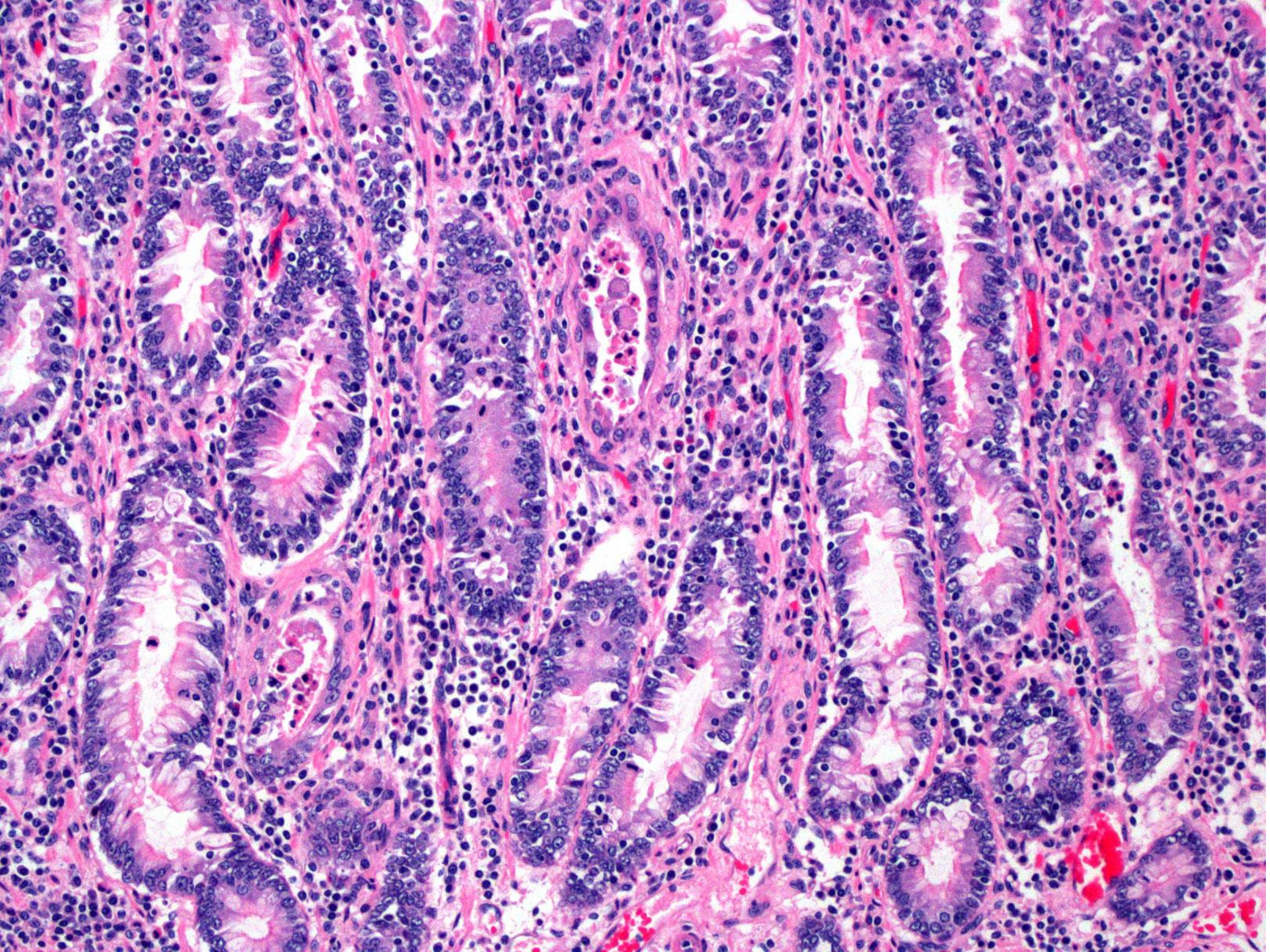
Disease/morphologic diagnosis:

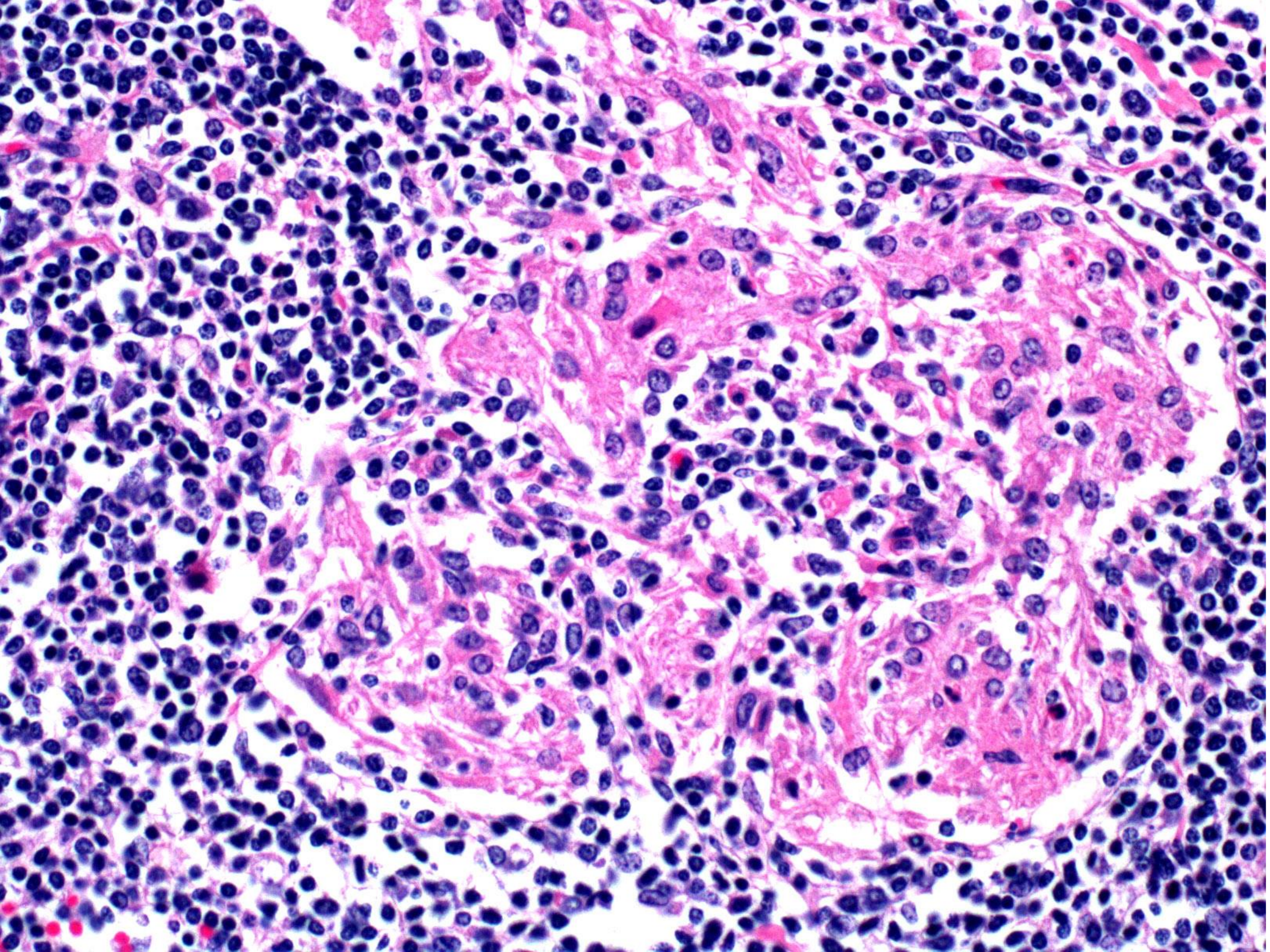
Mild to moderate granulomatous enteritis and colitis; severe granulomatous mesenteric lymphadenitis; moderate esophagitis with linear erosion, chronic

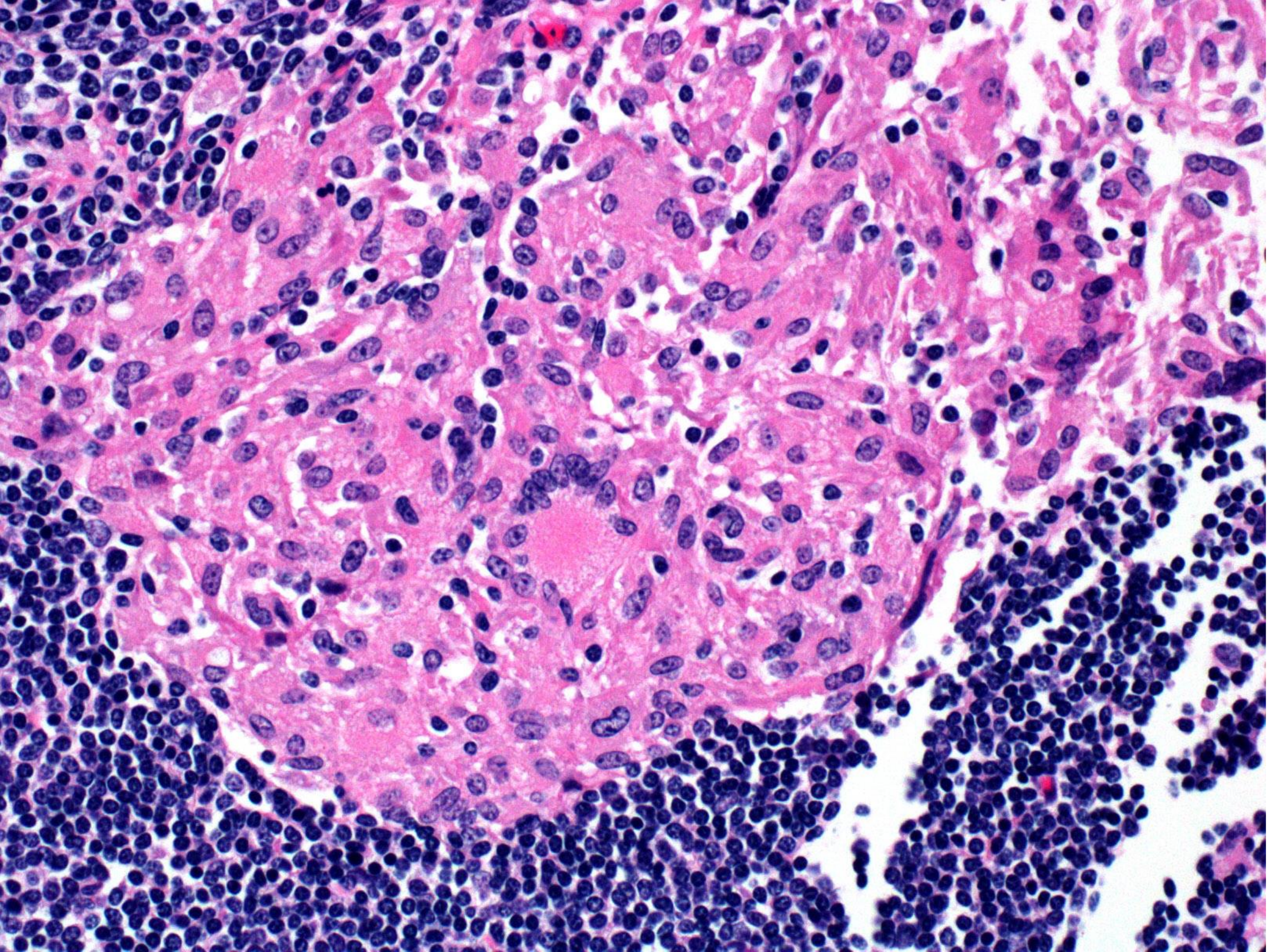
Etiology:

Mycobacterium avium ssp. paratuberculosis









Vet Pathol **37**:428–438 (2000)

The Pathology of Spontaneous Paratuberculosis in the North American Bison (*Bison bison)*

C. D. BUERGELT, A. W. LAYTON, P. E. GINN, M. TAYLOR, J. M. KING, P. L. HABECKER, E. MAULDIN, R. WHITLOCK, C. ROSSITER, AND M. T. COLLINS

Department of Pathobiology, University of Florida, Gainesville, FL (CDB, PEG);
Flying D Ranch, Gallatin Gateway, MT (MT);
Montana State Diagnostic Laboratory, Bozeman, MT (AWL);
Department of Biomedical Sciences (JMK) and New York State Diagnostic Laboratory (CR), Cornell University, Ithaca, NY;
University of Pennsylvania, New Bolton Center, Kenneth Square, PA (PLH, RW); and
Department of Pathobiology, University of Wisconsin, Madison, WI (EM, MTC)

Abstract. Gross and histopathologic examinations were performed on 70 North American bison *(Bison bison)* from a *Mycobacterium avium paratuberculosis* culture–positive herd. The bison examined were part of a breeding herd totaling 2,800 animals. Eight of 70 (11%) animals had gross findings of intestinal mucosal thickening, and 16 of 70 (23%) of the animals had enlarged mesenteric lymph nodes. Histologic lesions com

ELSEVIER

Veterinary Microbiology 77 (2000) 325–331

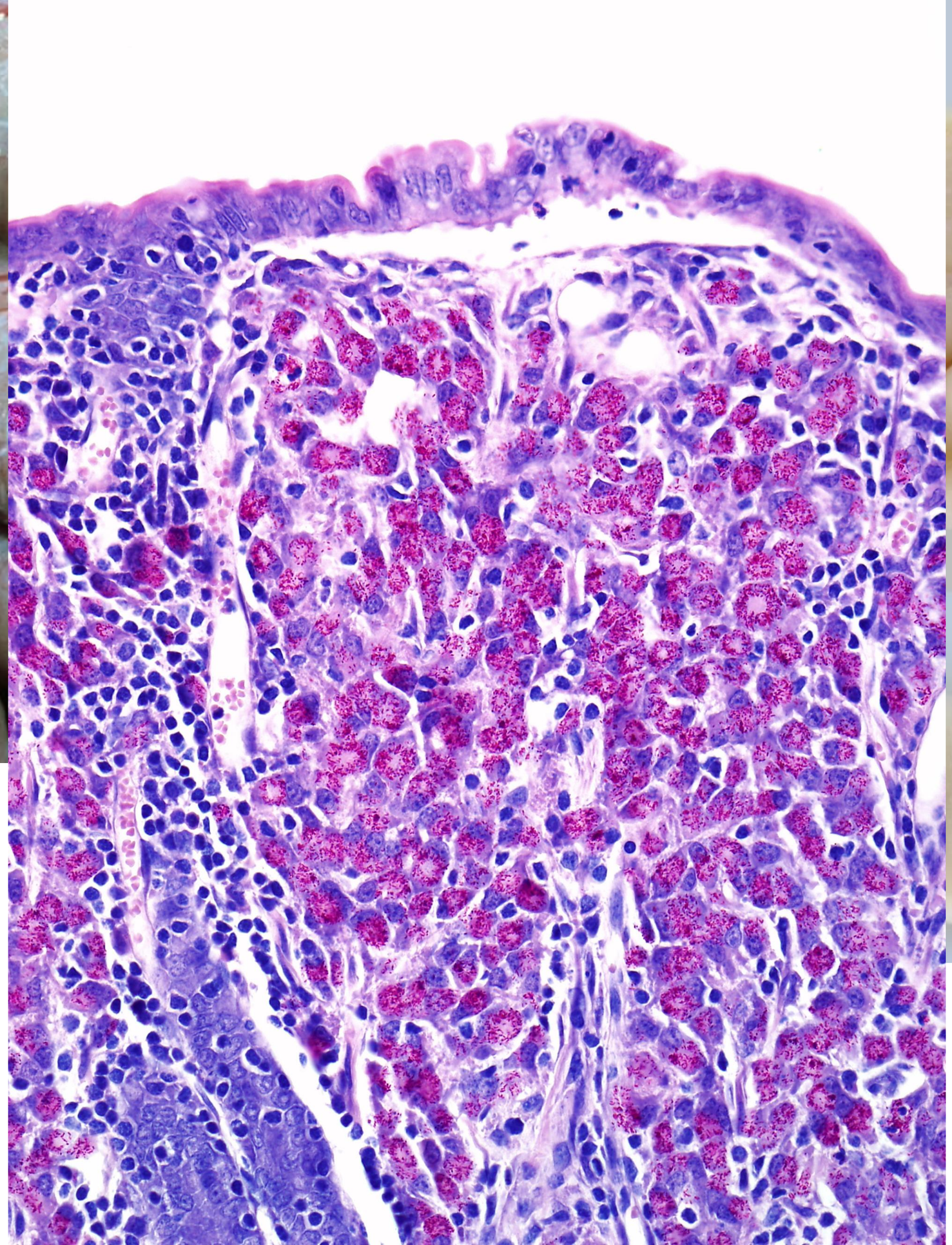
veterinary microbiology

www.elsevier.com/locate/vetmic

The histopathologic diagnosis of subclinical Johne's disease in North American Bison (*Bison bison*)

Claus D. Buergelt*, Pamela E. Ginn

Department of Pathobiology, College of Veterinary Medicine, University of Florida, Box 110880, Gainesville, FL 32611, USA



Case 28

Charolais bull

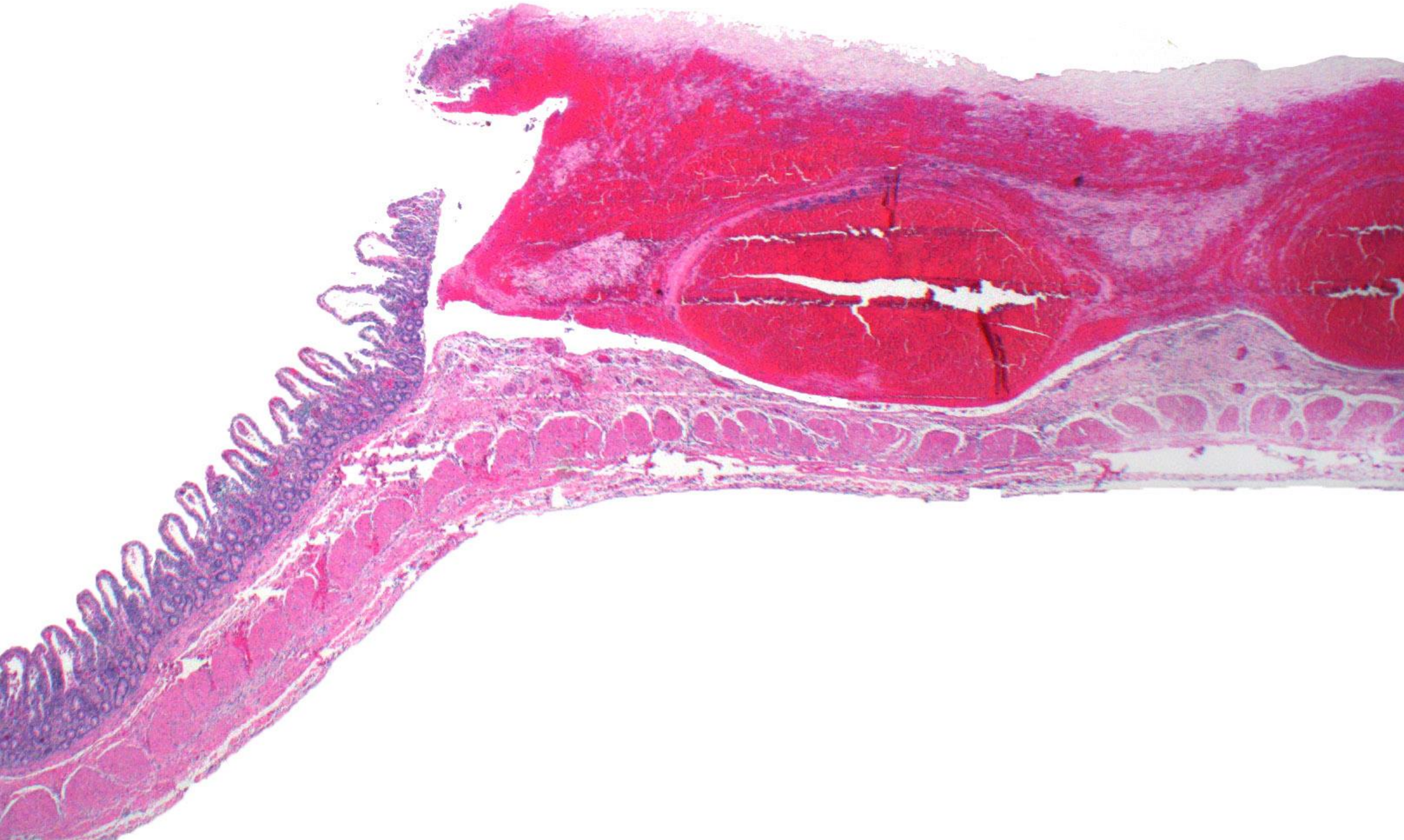
Contributor: Shelagh Copeland

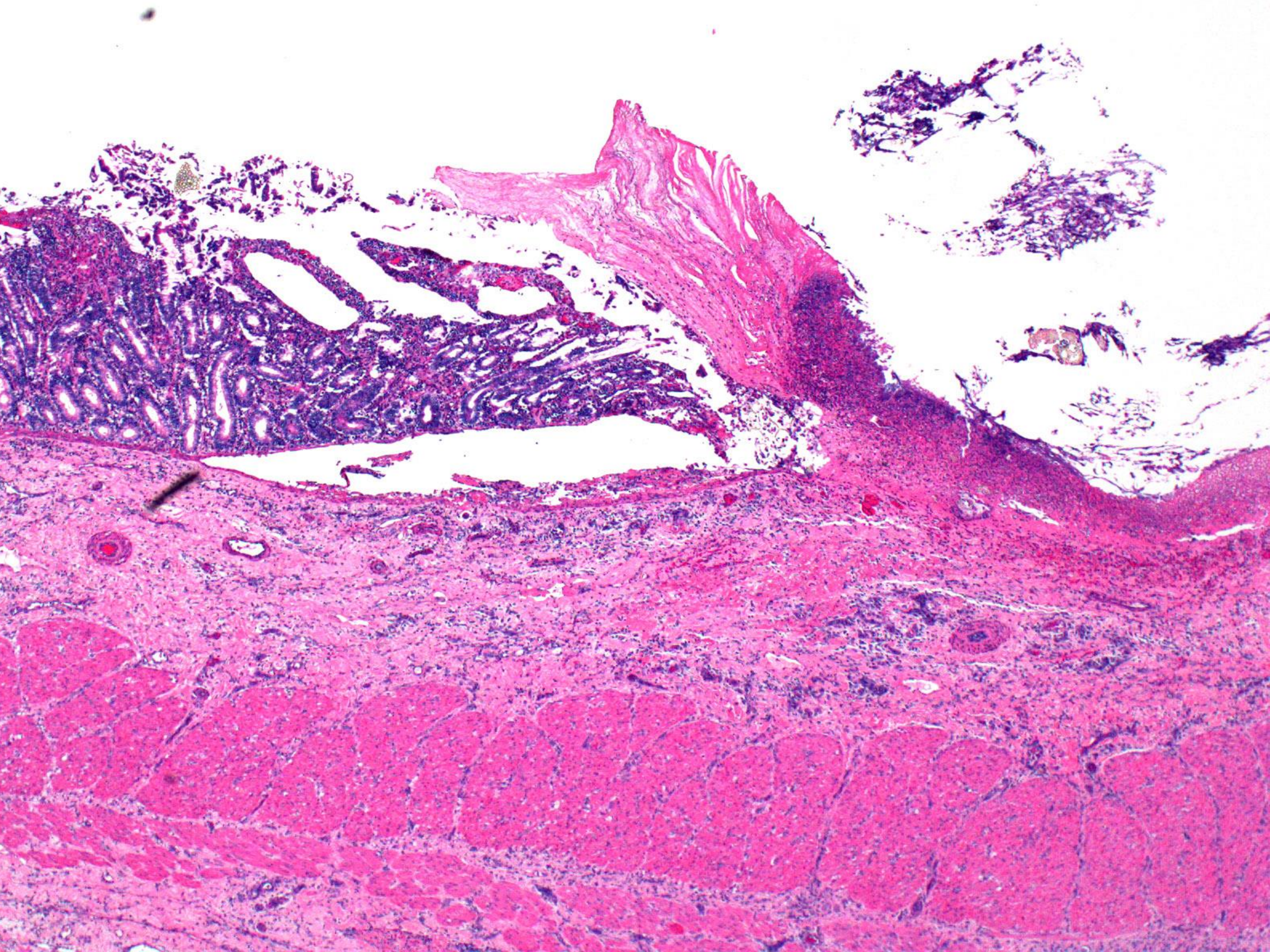
Disease/morphologic diagnosis:

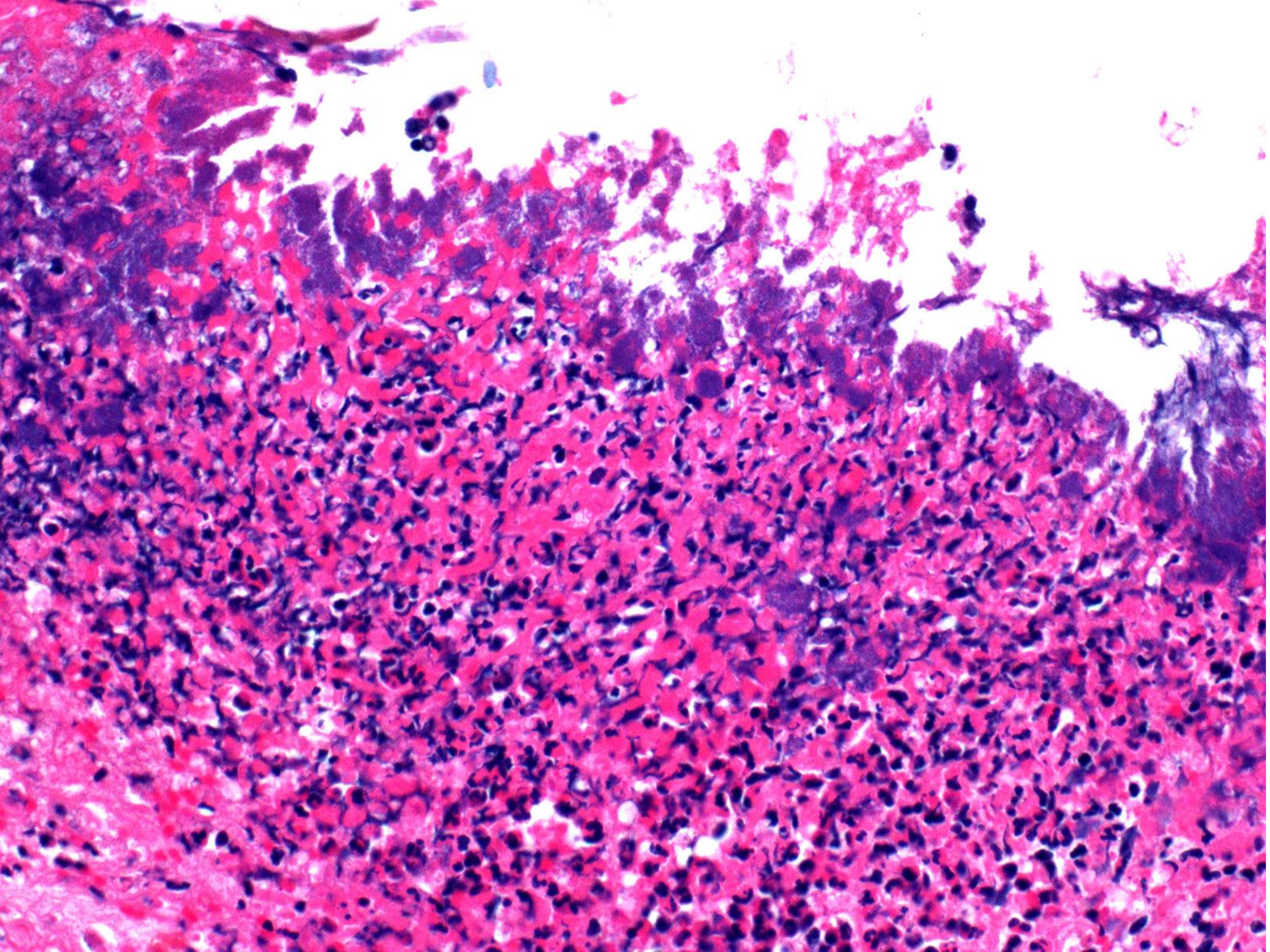
Segmental severe hemorrhagic enteritis with necrosis and ulceration, subacute (jejunal hemorrhage syndrome)

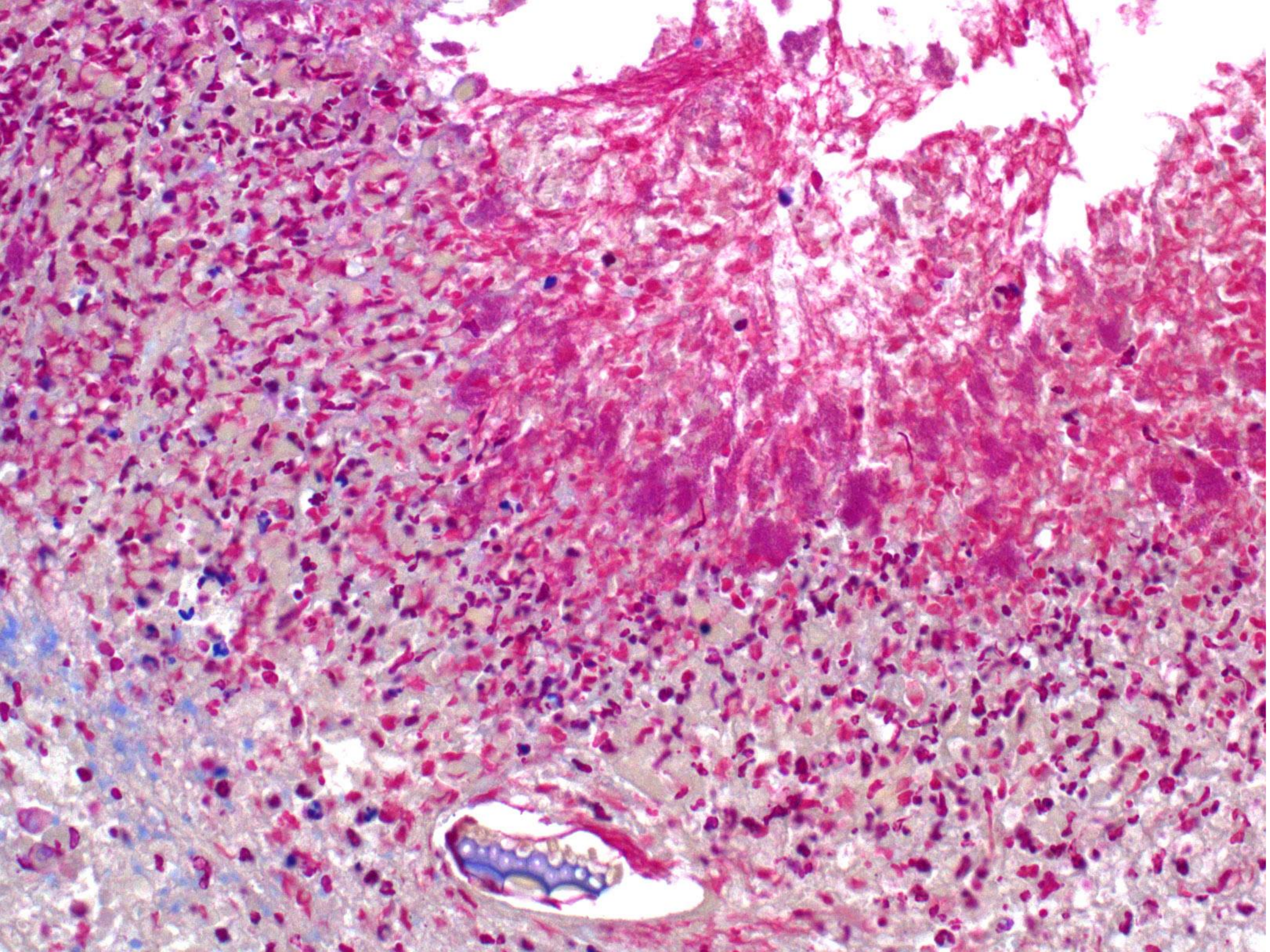
Etiology:

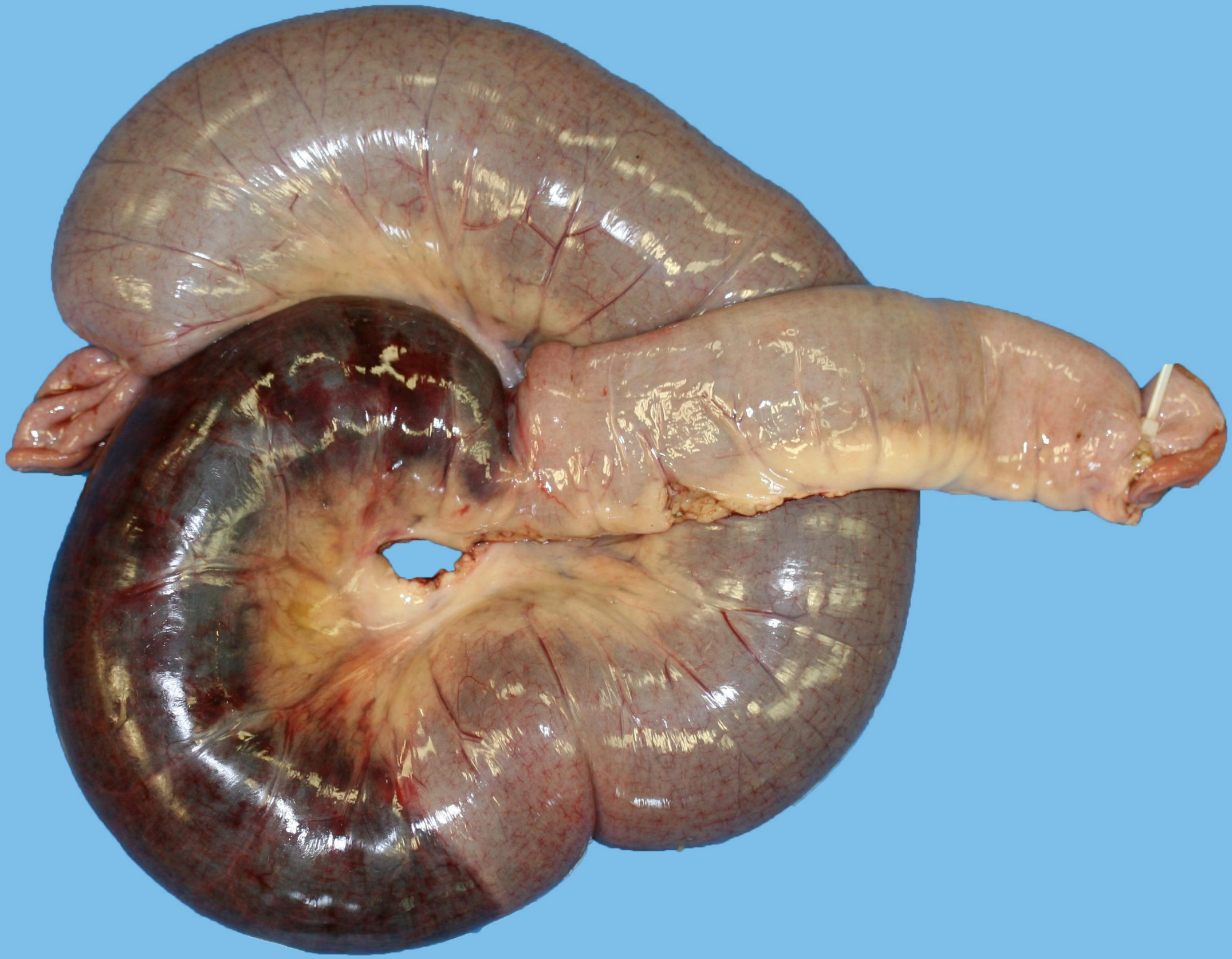
Unknown

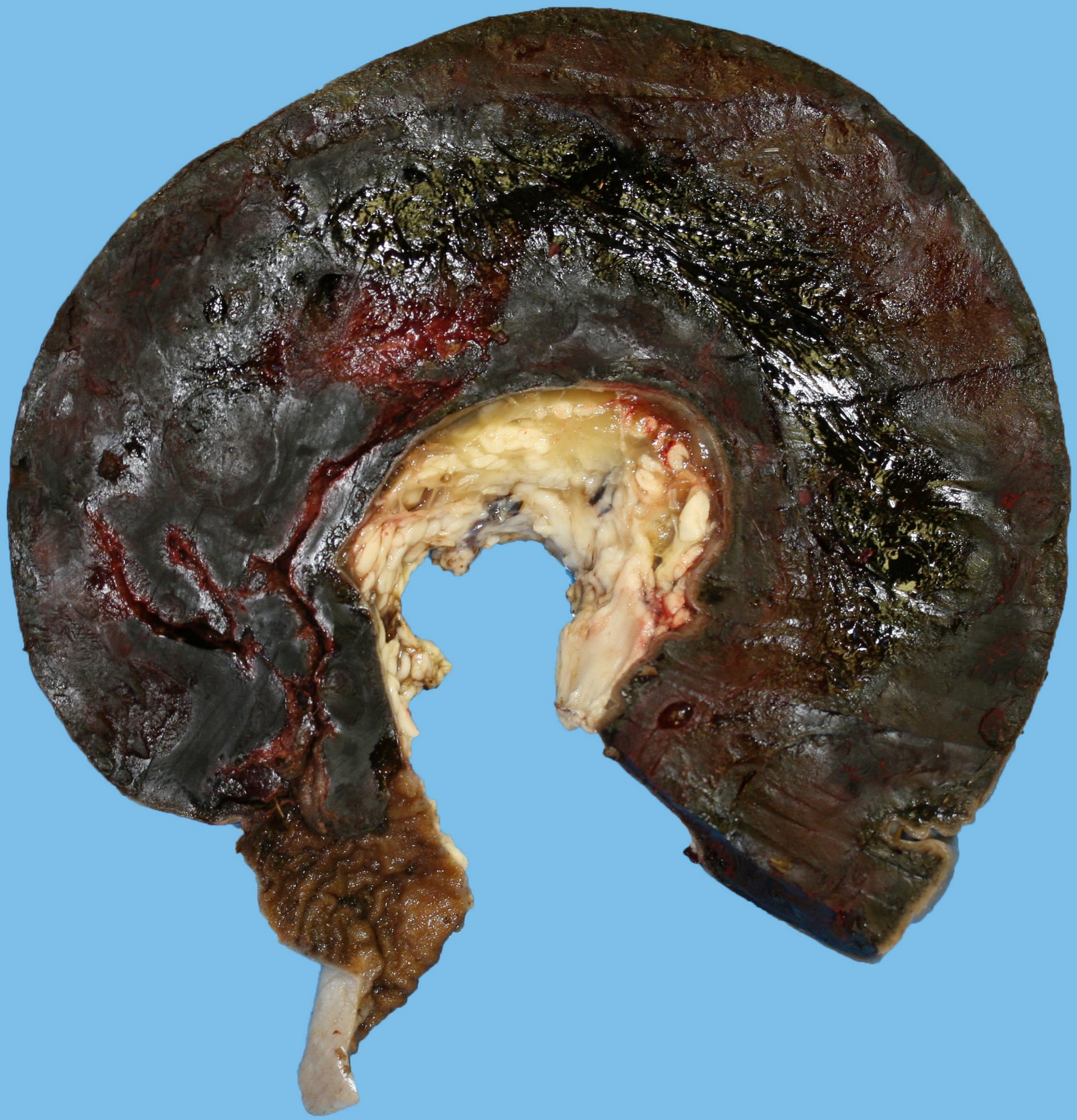


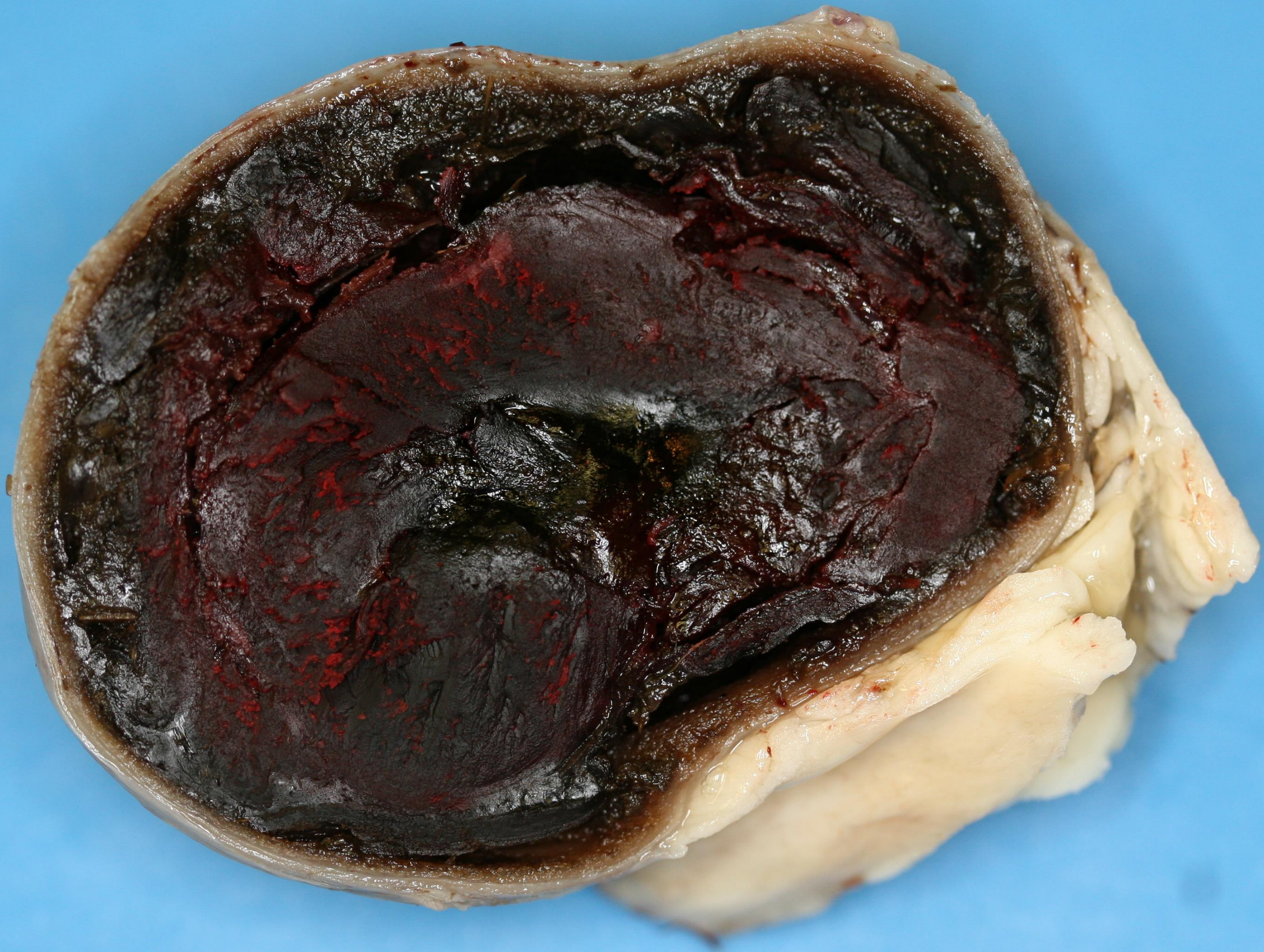




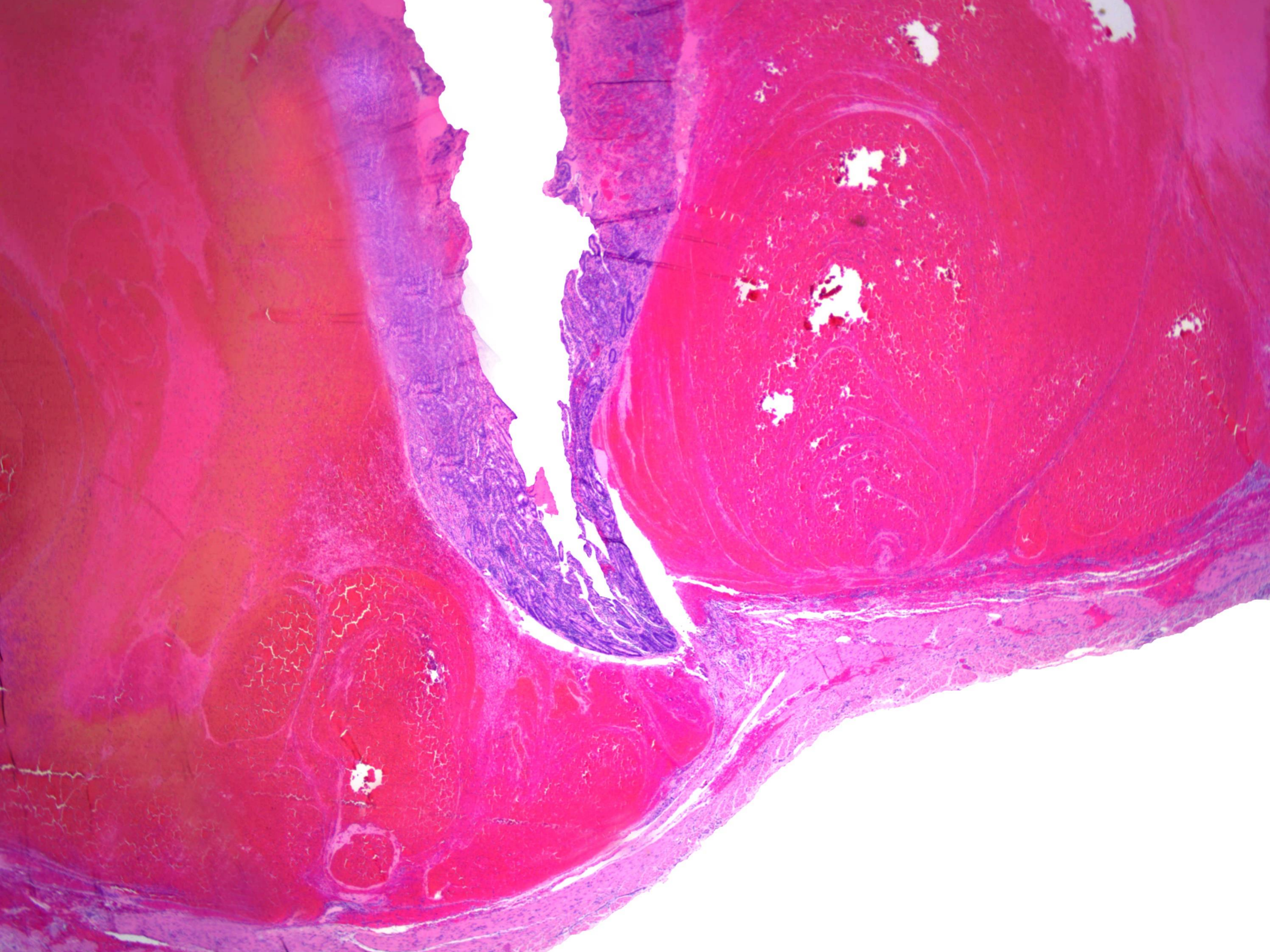


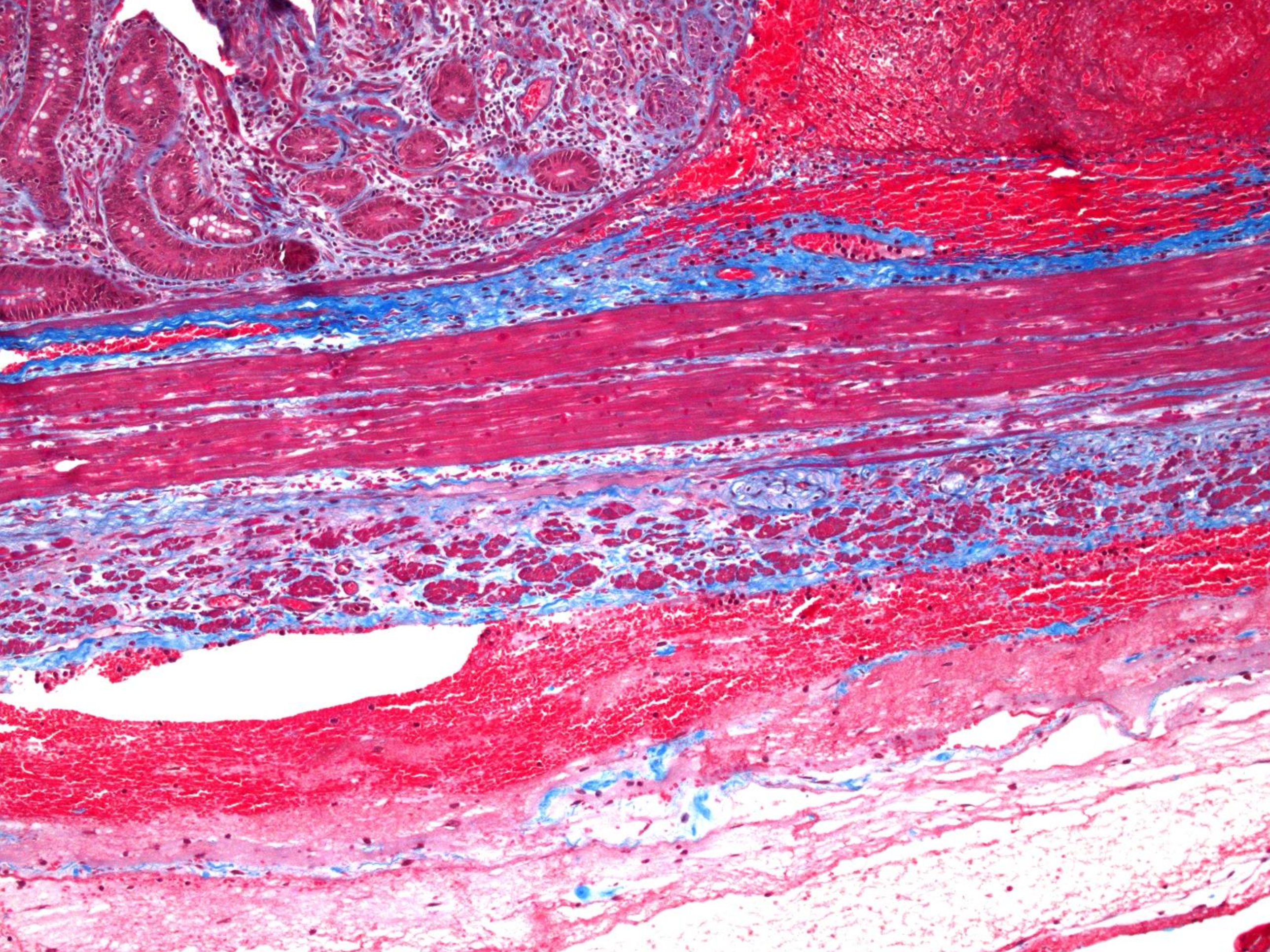


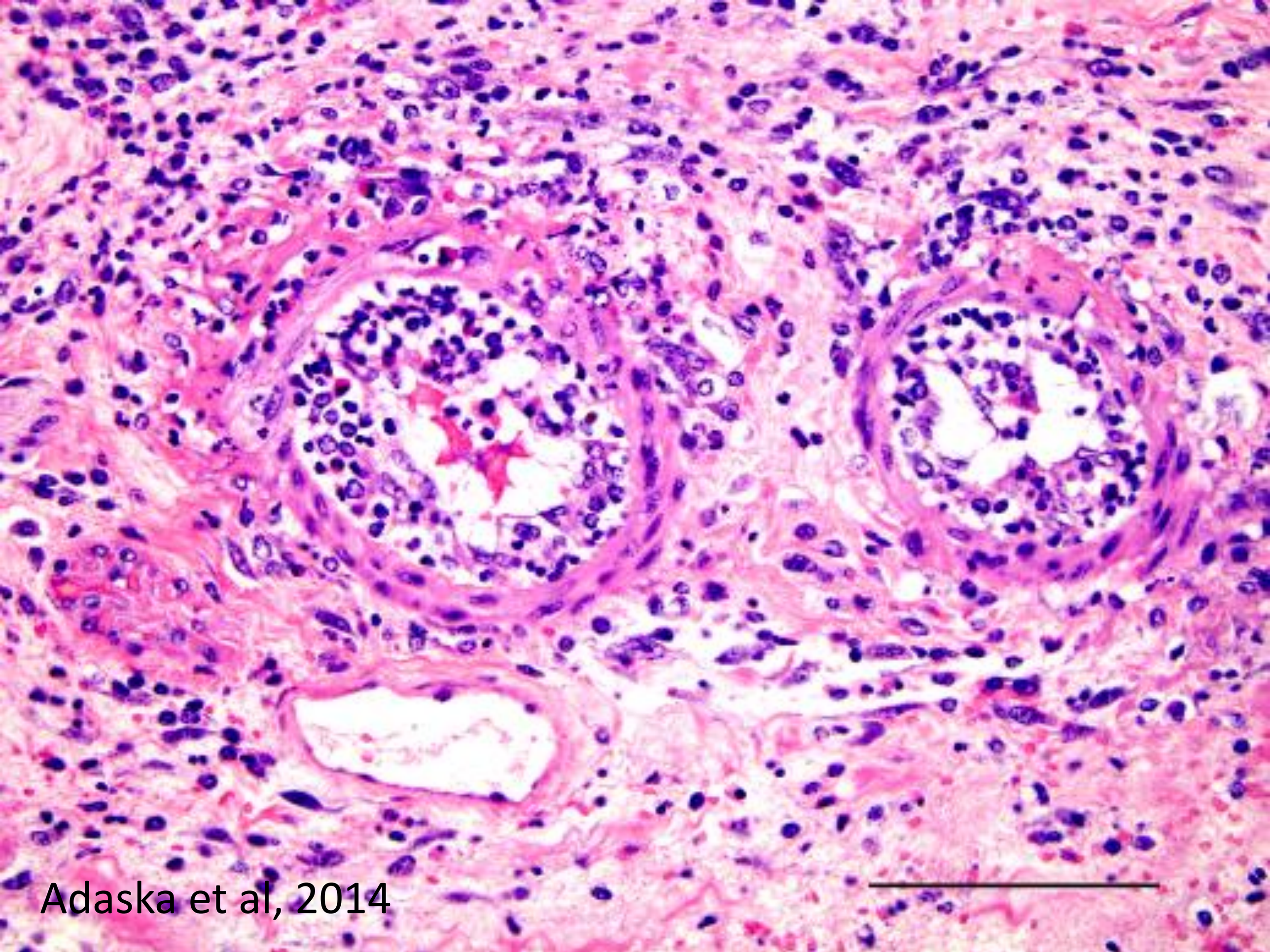




Rob Moeller







Adaska et al, 2014

Adaska et al, 2014

Retrospective review of 314 cattle cases with:

* Non-bloody intestinal content
* Bloody intestinal content but non-JH
* Bloody intestinal content and JH

No significant differences on detection of:

* *C. perfringens*
* *C. perfringens t*oxin genes
* *C. perfringens* toxins
* *Salmonella spp.*
* BVDV
* Copper levels

Adaska et al, 2014

Full Scientific Report

Journal of Veterinary Diagnostic Investigation
2014, Vol. 26(1) 96–103

DOI: 10.1177/1040638713517696
jvdi.sagepub.com

Jejunal hematoma in cattle: a retrospective case analysis

John M. Adaska,[1] Sharif S. Aly, Robert B. Moeller, Patricia C. Blanchard, Mark Anderson, Hailu Kinde, Francisco Uzal

Abstract. Sixteen years of adult cattle submissions to the California Animal Health and Food Safety Laboratory System were examined and data captured from cases with anaerobic cultures of intestinal content. Analysis was performed to determine if there were statistical differences between case submission types (nonbloody intestinal content [129 cases], bloody intestinal content [134 cases], and jejunal hematoma [JH; 51 cases]) for the presence of *Clostridium perfringens* (314 cases), *C. perfringens* toxinotypes (35 cases), and *C. perfringens* toxins (51 cases) in the content. Across submission types, significant differences were found in the isolation of *C. perfringens* between different specimen types (live cow, dead cow, or tissue from a field necropsy) with field samples being the most likely to have *C. perfringens* detected and live animals the least likely

Case 29

Calf

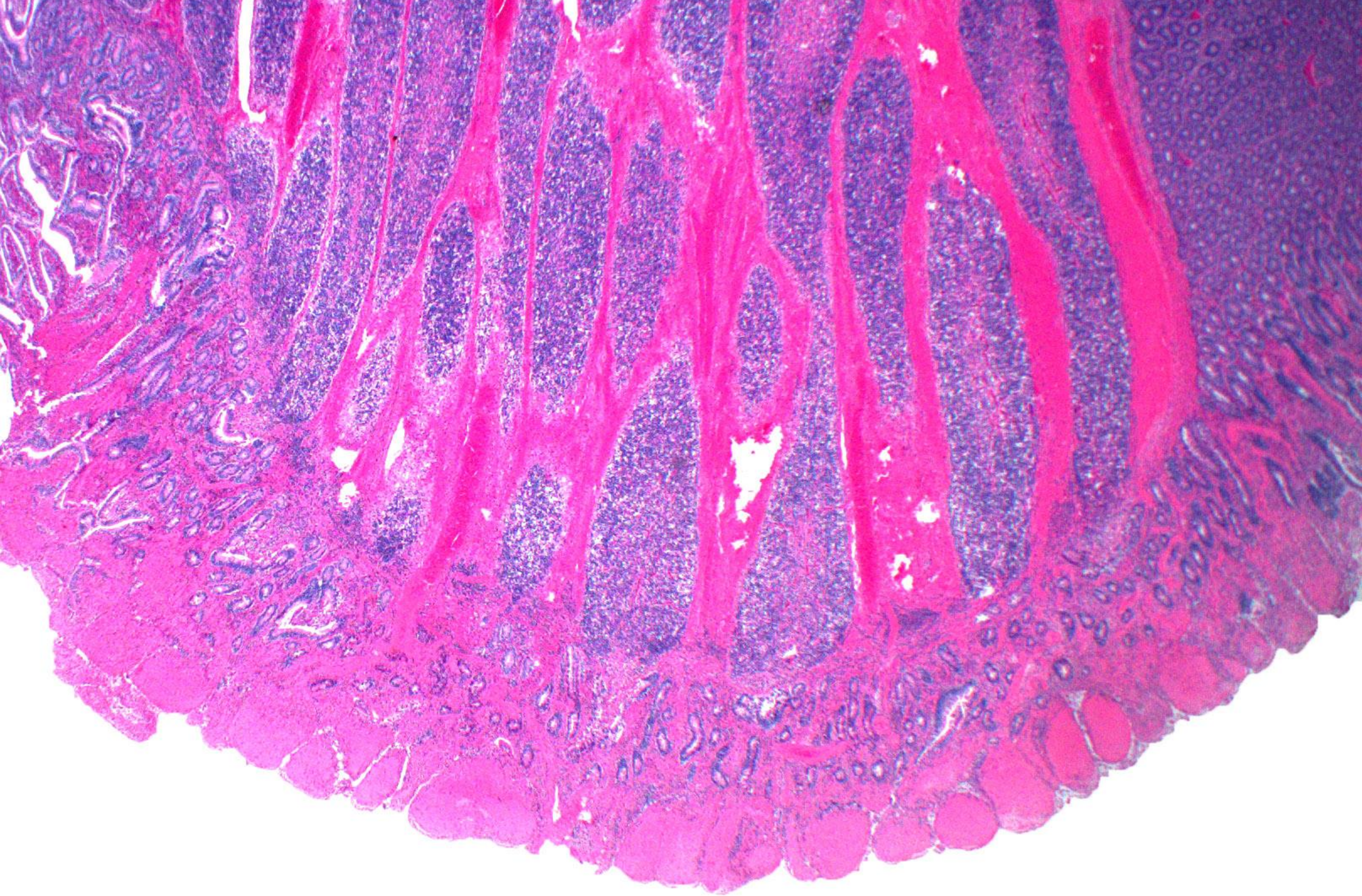
Contributor: Shelagh Copeland

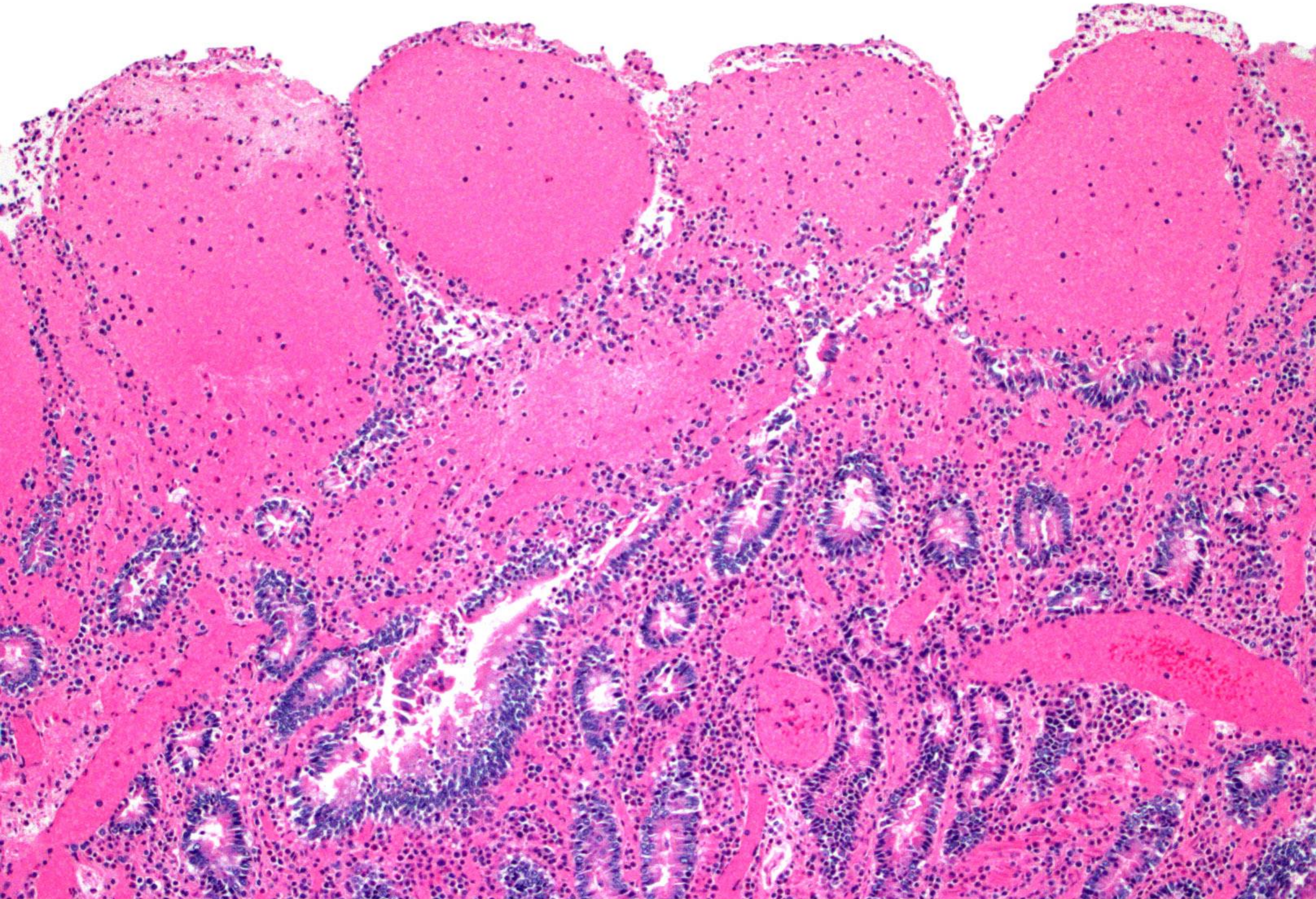
Disease/ morphologic diagnosis:

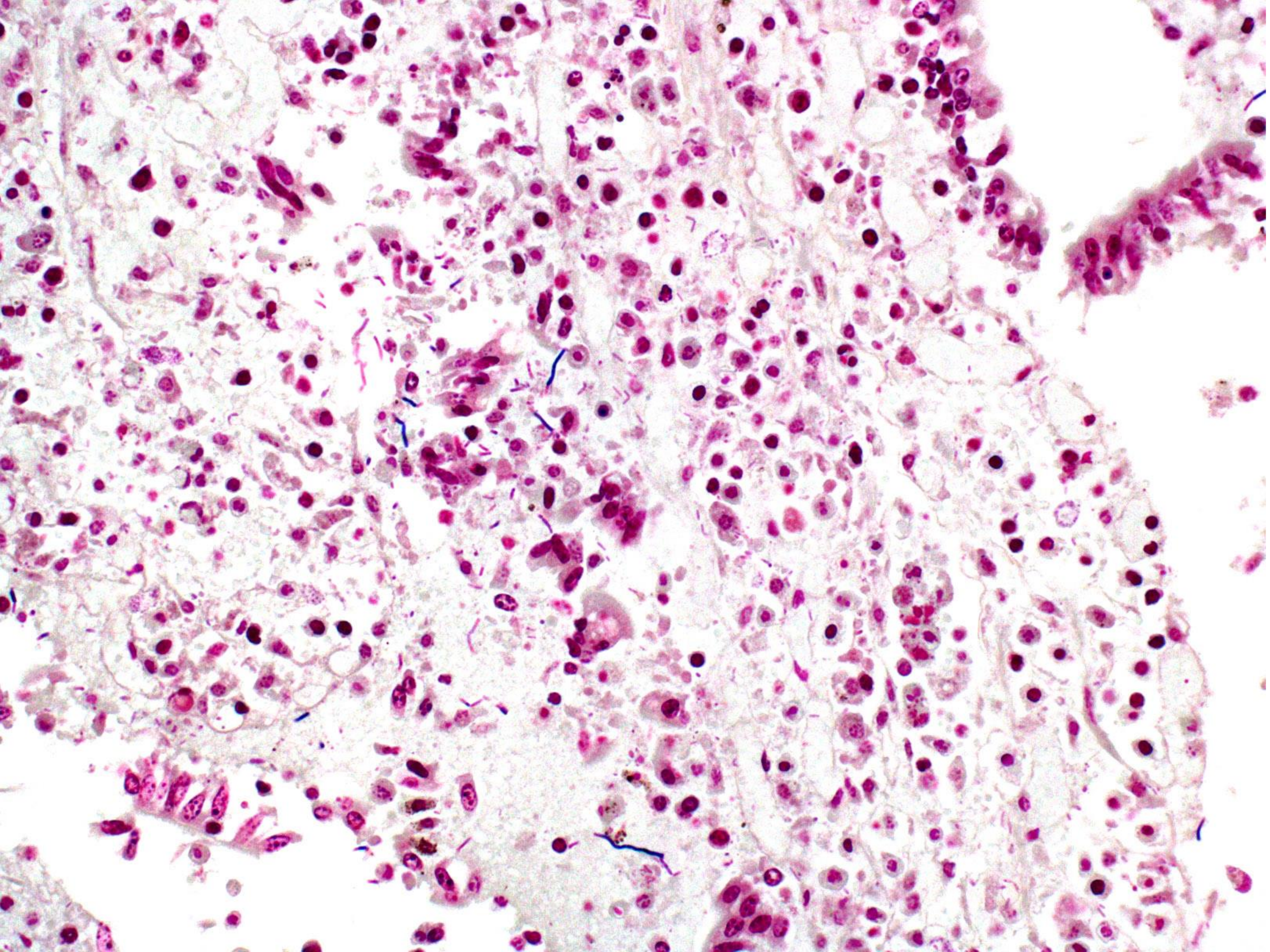
Severe hemorrhagic enteritis, acute

Etiology:

Clostridium chauvoei







How To

PubMed

blackleg cattle enteritis

Search

Create alert Advanced

Search results

Items: 0

No documents match your search terms

Outbreak of intestinal and lingual *Clostridium chauvoei* infection in two-year-old Friesian heifers

D. G. HARWOOD, R. J. HIGGINS, D. J. AGGETT

Clostridium chauvoei infection in cattle is recognised worldwide, typically causing skeletal myositis ('blackleg'). Other less common lesions can involve the heart and meninges (Malone and others 1986, Helman and others 1997). Bovine clostridial myositis in the UK has been reviewed recently by Harwood and Watson (2004). This short communication

FIG 1: Yellow fibrin deposits covering the serosal surface of the affected small intestinal loops in a heifer with *Clostridium chauvoei* infection

toxylin and eosin for histological examination. The tongue of both animals showed acute haemorrhagic and necrotising glossitis associated with Gram-positive clostridia-like bacilli. The affected intestine of the less autolysed heifer showed dif-

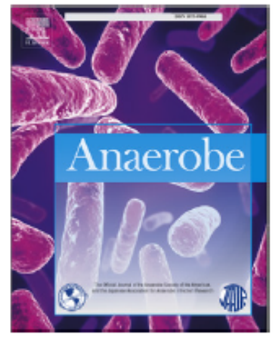
Veterinary Record (2007) **161,** 307-308

Anaerobe xxx (2018) 1–10

Contents lists available at ScienceDirect

Anaerobe

journal homepage: www.elsevier.com/locate/anaerobe



Research paper

Comparative pathogenesis of enteric clostridial infections in humans and animals

Francisco A. Uzal [a, *], Mauricio A. Navarro [a], Jihong Li [b], John C. Freedman [b], Archana Shrestha [b], Bruce A. McClane [b]

[a] California Animal Health and Food Safety Laboratory System, San Bernardino Branch, University of California, Davis, CA, USA
[b] Department of Microbiology and Molecular Genetics, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

ARTICLE INFO

Article history:
Received 1 March 2018
Accepted 4 June 2018

ABSTRACT

Several enteric clostridial diseases can affect humans and animals. Of these, the enteric infections caused by *Clostridium perfringens* and *Clostridium difficile* are amongst the most prevalent and they are reviewed here. *C. perfringens* type A strains encoding alpha toxin (CPA) are frequently associated with enteric

Case 32

15 year old warmblood mare

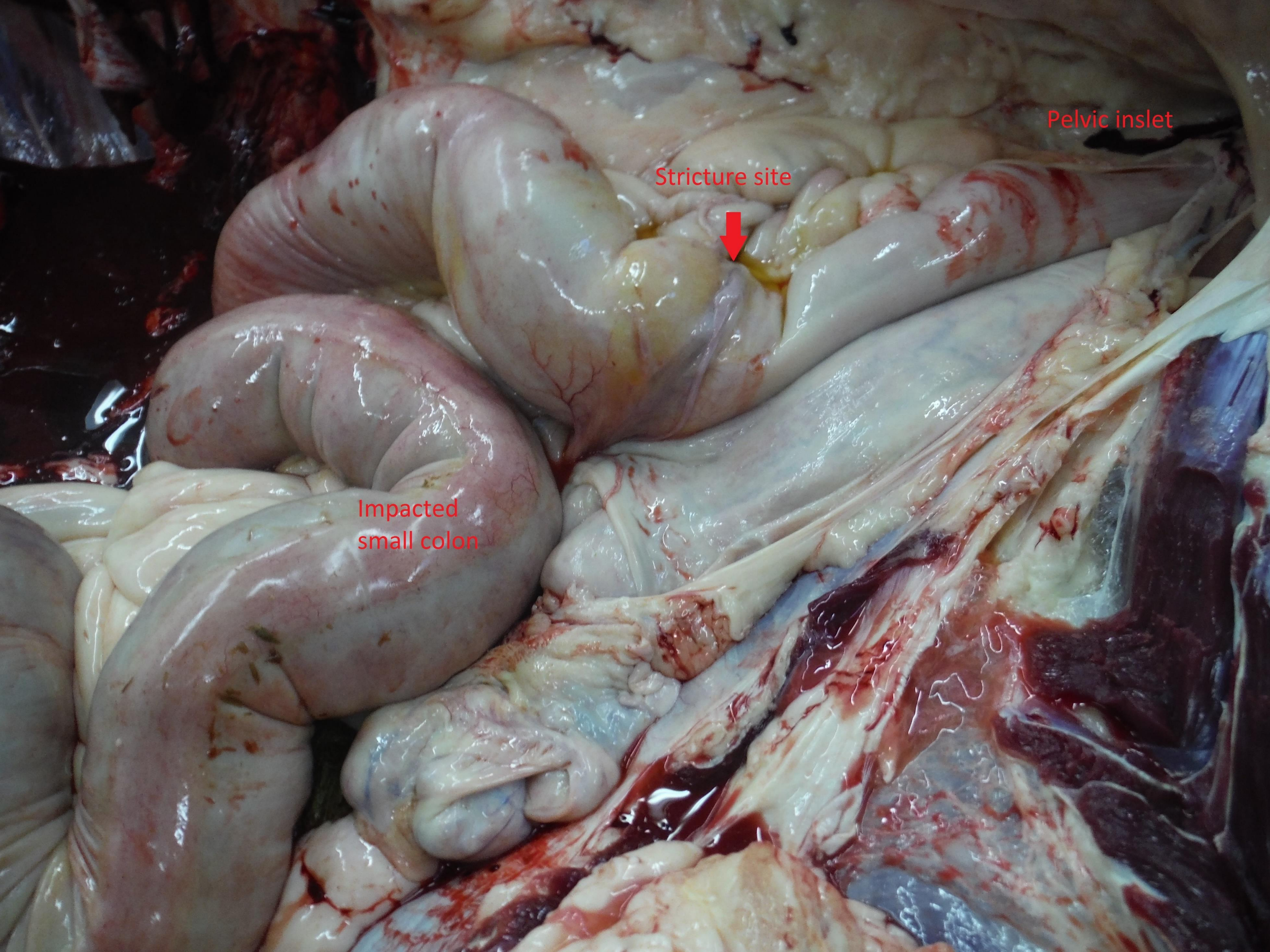
Contributor: Delaney Schofer and Chelsea Himsworth

Disease/morphologic diagnosis:

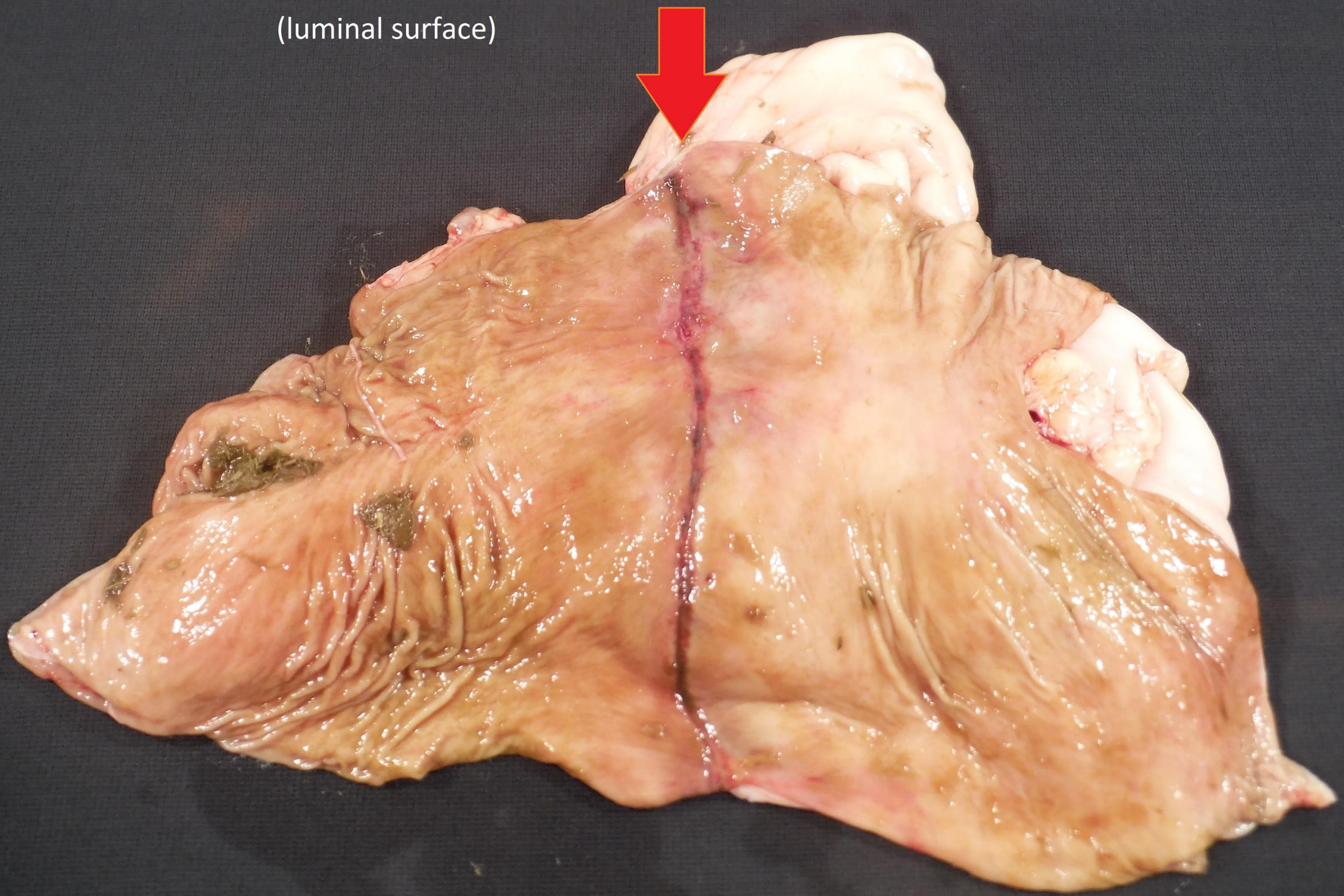
Colon stricture

Etiology:

Rectal prolapse


Pelvic inslet
Stricture site
Impacted
small colon

Small colon stricture
(luminal surface)



Ulceration and stricture of the right dorsal colon after phenylbutazone administration in four horses

ME HOUGH, CM STEEL, JR BOLTON and JV YOVICH
Division of Veterinary and Biomedical Sciences, Murdoch University, Murdoch, Western Australia 6150

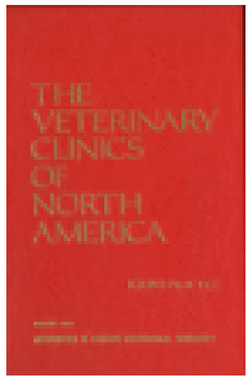
Four cases of ulceration and stricture of the right dorsal colon were encountered. Ulceration of the right dorsal colon is generally associated with nonsteroidal anti-inflammatory drug (NSAID) toxicosis but there are few reports of stricture following ulceration. All four horses had recent phenylbutazone use: three had been given doses well in excess of the recommended dose and in one the dose was marginally above those recommended but was combined with administration

***Aust Vet J* Vol 77, No 12, December 1999**

ELSEVIER

Veterinary Clinics of North America: Equine Practice

Volume 5, Issue 2, August 1989, Pages 407-428



Management of Rectal Injuries

Mark C. Rick DVM (Private Practitioner) *

Show more

https://doi.org/10.1016/S0749-0739(17)30597-7

Diagnosis, evaluation, and management of the various grades of rectal tears is discussed. Surgical techniques, which include direct closure, diverting colostomies, and placement of temporary rectal liners, are detailed. Also, rectal prolapses and various methods of repair are outlined.

Case 33

7-year old Border collie

Contributor: Carolyn Legge

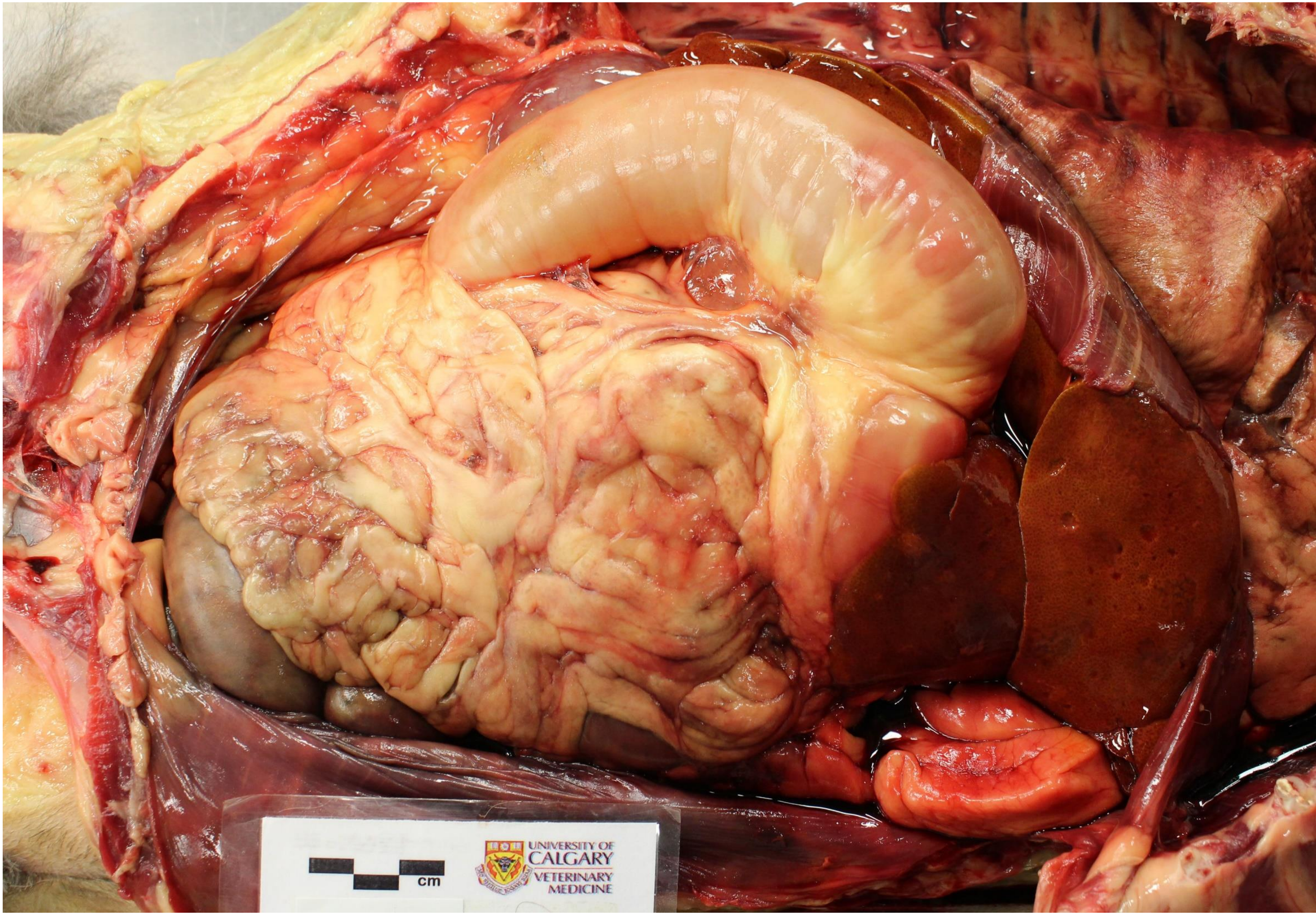
Disease/morphologic diagnosis:

Gastrointestinal pseudo-obstruction (lymphoplasmacytic gastrointestinal leiomyositis, multifocal, mild to moderate, subacute to chronic)

Etiology:

Segmental or diffuse neuromuscular dysfunction due to presumed immune-mediated destruction of gastrointestinal smooth muscle


UNIVERSITY OF CALGARY
VETERINARY MEDICINE
cm


cm
UNIVERSITY OF
CALGARY
VETERINARY
MEDICINE


cm
UNIVERSITY OF
CALGARY
VETERINARY
MEDICINE


METRIC 1 2 3 4

Human Pathology (2005) **36**, 576–580

ELSEVIER

Human
PATHOLOGY

www.elsevier.com/locate/humpath

Autoimmune enteric leiomyositis: A rare cause of chronic intestinal pseudo-obstruction with specific morphological features

Susanne Haas MD[a,*], Lutz Bindl MD[b], Hans-Peter Fischer MD[a]

[a]*Institute of Pathology, Medical Faculty of the University of Bonn, D-53127 Bonn, Germany*
[b]*Department of General Paediatrics, University Childrens Hospital, D-53113, Bonn, Germany*

Case 23

Pig

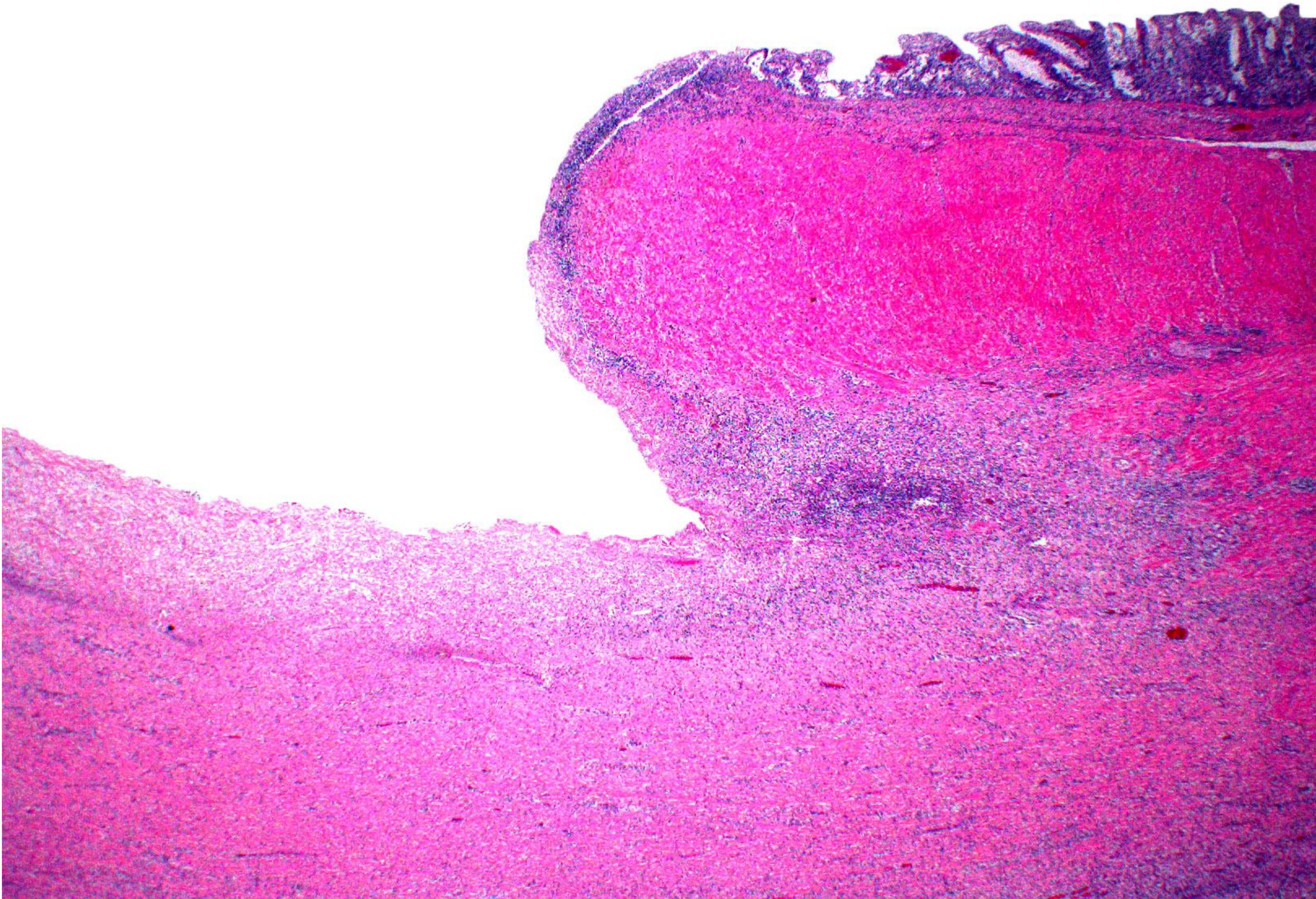
Contributor: Vasyl Shpyrka

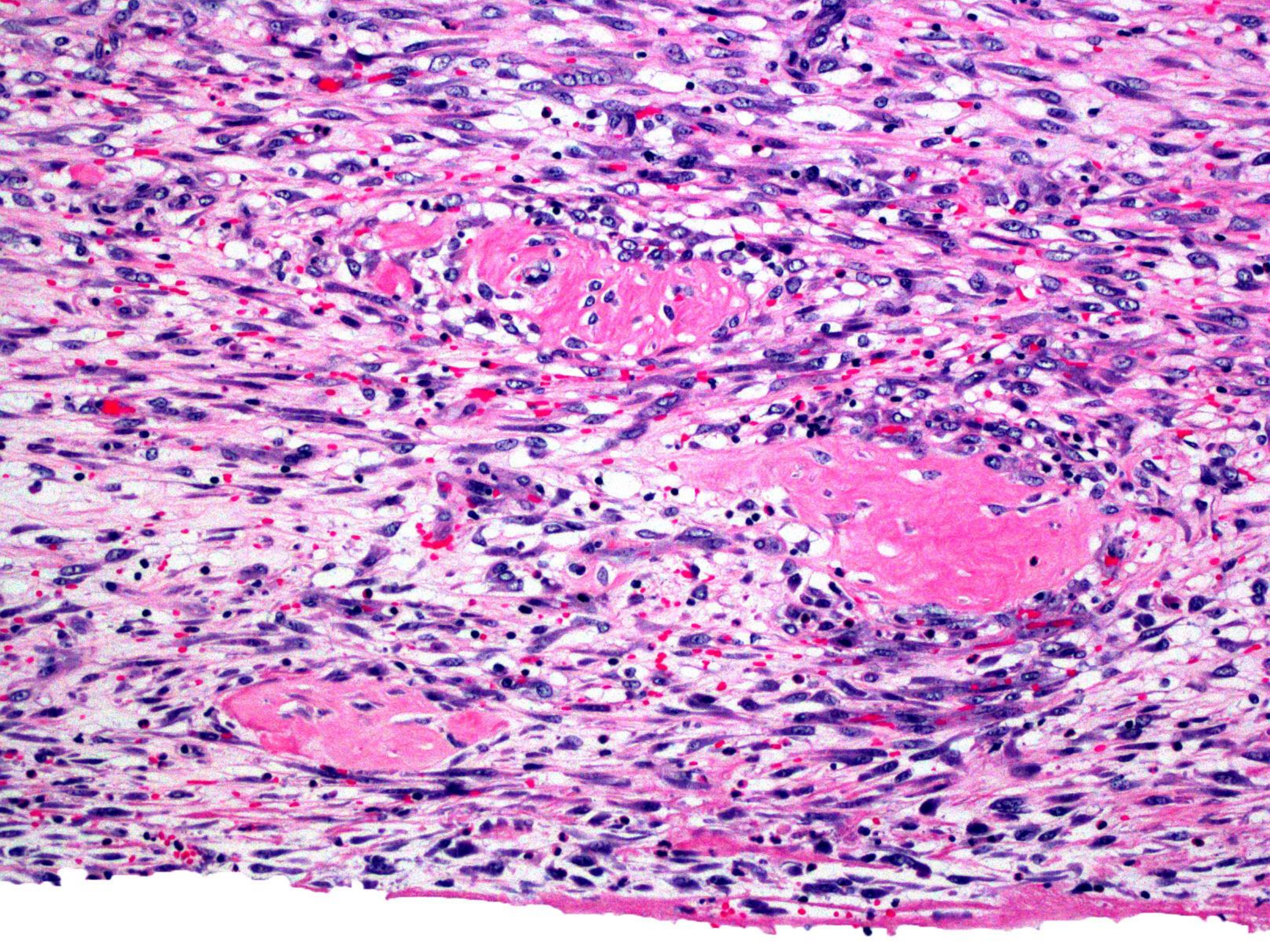
Disease/morphologic diagnosis:

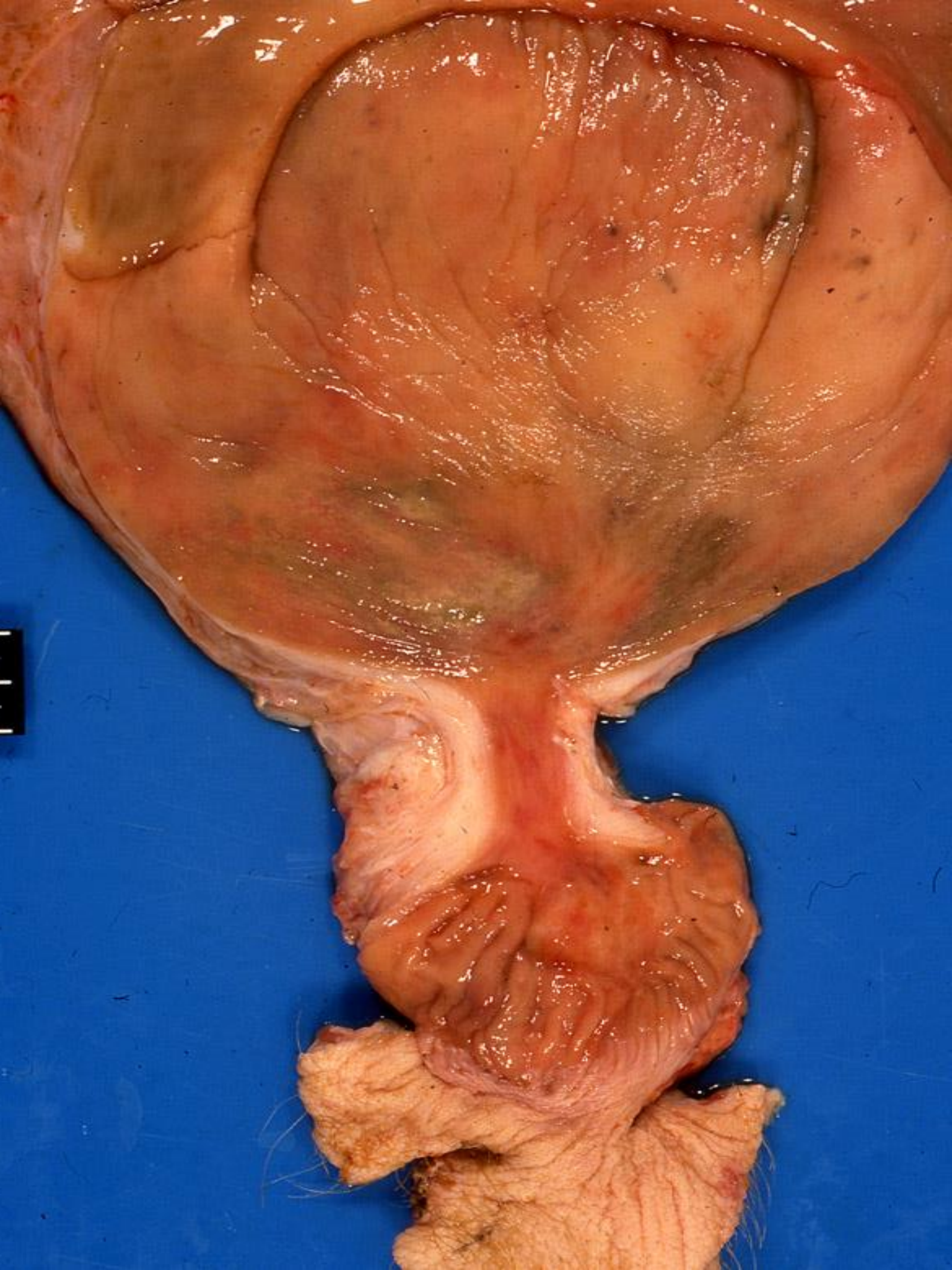
Rectal stricture

Etiology:

Rectal stricture as a result of presumed ischemic proctitis with thrombosis of caudal mesenteric and pudendal arteries supply to the rectum as well as collateral blood supply to the rectum (cranial hemorrhoidal artery)







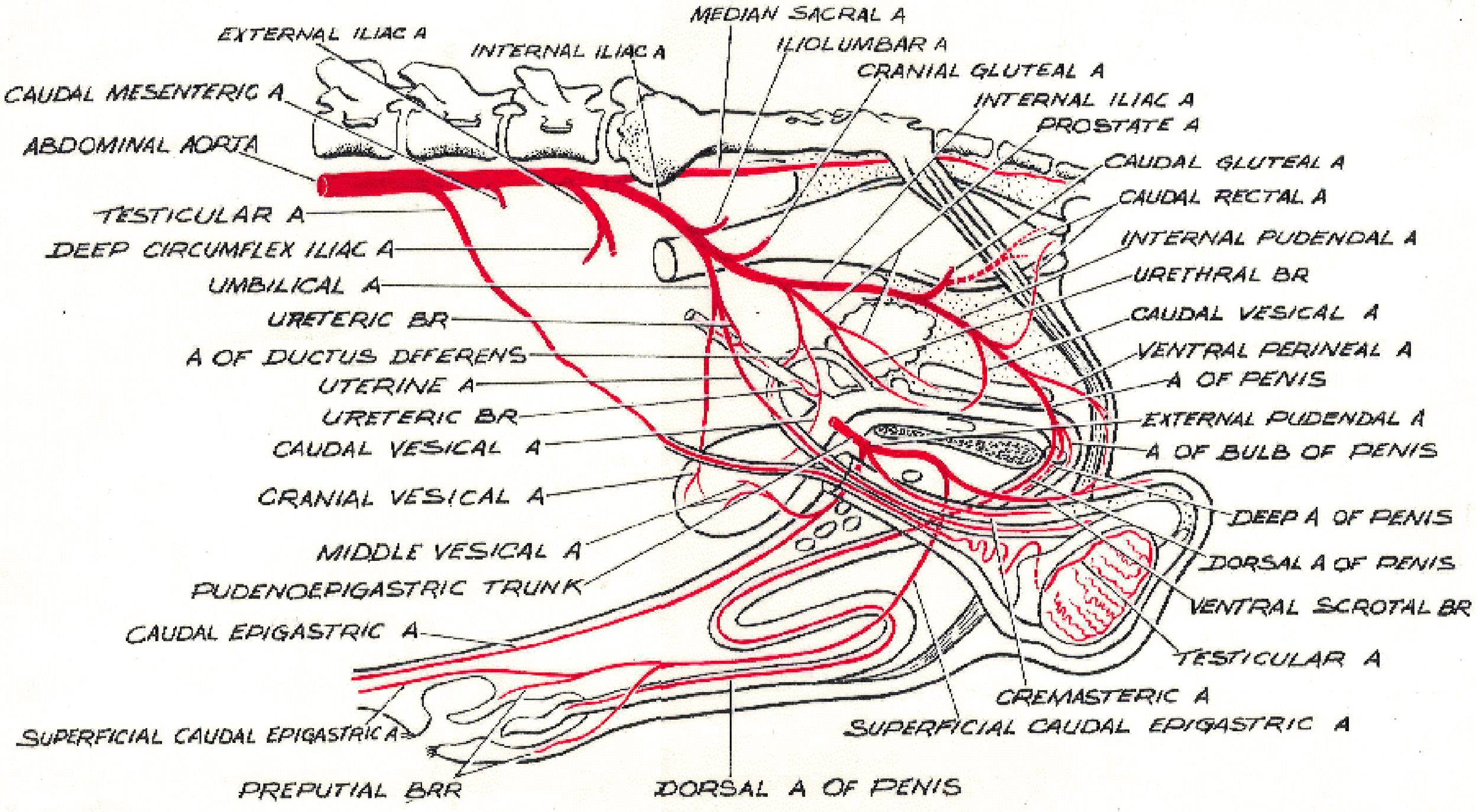
Rectal stricture appears to be a product of ischemic proctitis, probably related in many cases to infection with *Salmonella* Typhimurium.

JKP 2016

area of rectum with relatively poor blood supply

Junction circulatory fields:

caudal mesenteric and pudendal arteries



SEMISCHEMATIC VIEW OF THE ARTERIES OF THE PELVIC CAVITY OF THE PIG

Case 24

Dog

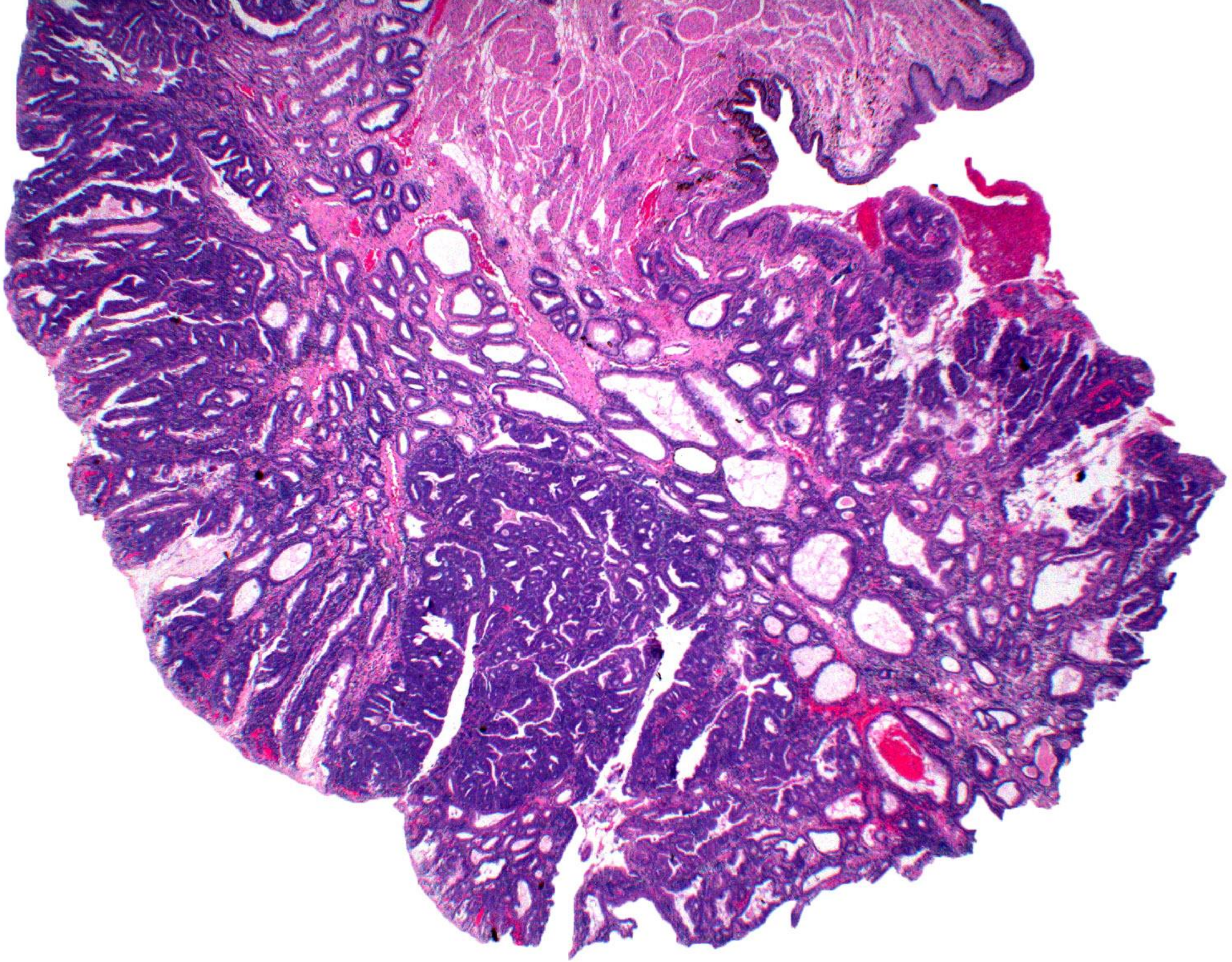
Contributor: Enrique Aburto

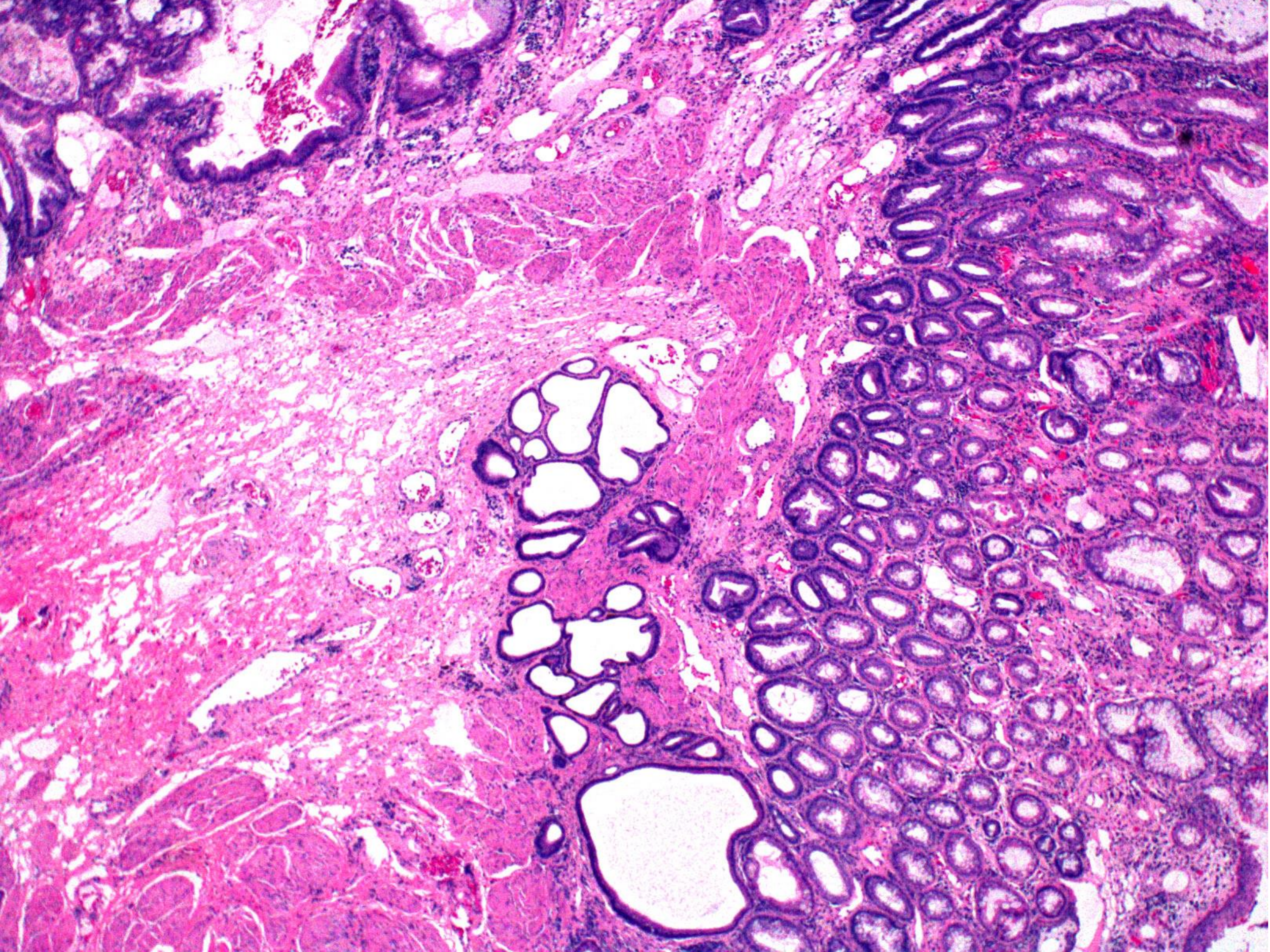
Disease/morphologic diagnosis:

Rectal papillary adenoma

Etiology:

NA





Colonoscopic and histologic features of rectal masses in dogs: 82 cases (1995–2012)

Krista N. Adamovich-Rippe DVM
Philipp D. Mayhew BVM&S
Stanley L. Marks BVSc, PhD
Laura E. Selmic BVetMed, MPH
William T. N. Culp VMD
Angela M. Youello VMD, PhD
Jeffrey J. Runge VMD
David E. Holt BVSc
Philip H. Kass DVM, MPVM, PhD
John R. Peauroi DVM, MPVM

OBJECTIVE
To evaluate colonoscopic and histologic features of rectal masses in dogs.

DESIGN
Retrospective case series.

ANIMALS
82 client-owned dogs with rectal masses that underwent colonoscopy.

PROCEDURES
Medical records of dogs with rectal masses that underwent colonoscopy were reviewed. History, signalment, clinical signs, results of physical examination, diagnostic imaging findings, and results of colonoscopy (including complications) were recorded. When available, tissue samples obtained during colonoscopy and by means of surgical biopsy were reviewed by a sin-

J Am Vet Med Assoc 2017;250:424–430