



# ECVP/ESVP Summer School in Veterinary Pathology

## Summer School 2014 – Gastrointestinal Tract

N14-300-8 18 year-old, 9-month-pregnant mare with colic

A section of colon with a greatly thickened, but hypocellular, congested and hemorrhagic submucosa [3] is examined. One section's edge [1] of mucosa has some viable enterocytes and a recognizable, viable, congested and mildly hemorrhagic lamina propria with a mild to moderate, degenerate neutrophilic infiltrate [2]. A lymphoid follicle is hypocellular with an exposed reticular tissue (lymphocyte loss and edema) [2]. The remaining mucosa has the superficial 50-90% of its luminal edge with coagulative necrosis [1] separated by a band of bacteria in mucus from the remnant of mucosa similar to the "viable" edge described. The mucosa is increasingly hemorrhagic moving away from the viable mucosal edge. The submucosa is expanded by rarified connective tissue and lymphatics dilated by a low protein-content fluid (edema) with a mild to multifocally moderate infiltrate of degenerate neutrophils and scattered histiocytes. The infiltrate is uniformly above and below the muscularis submucosa [1]. Annular, postcapillary veins have a constricted/sacculated congestion (shock vessels [2]), and veins are multifocally and segmentally and mildly infiltrated by neutrophils (phlebitis). Hemorrhage dissects into arteriolar walls. Hemorrhage becomes severe at the section edge away from the viable mucosa and ultimately becomes transmural, dissecting [2] the muscle layers and onto the serosa. This edge has extremely dilated veins.

Mdx [4]: Severe, segmental or multifocal, necrohemorrhagic, neutrophilic colitis with submucosal edema; acute, submucosal to transmural hemorrhage; postcapillary annular vein constriction with mild phlebitis.

Etiology [2]: *Salmonella enterica* spp Typhimurium, presumed