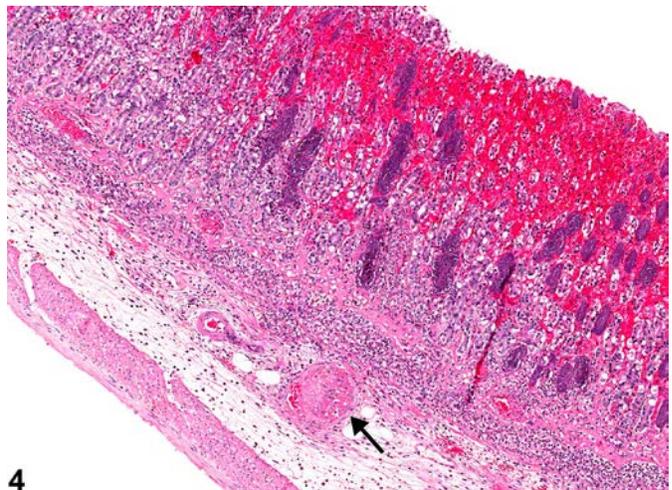
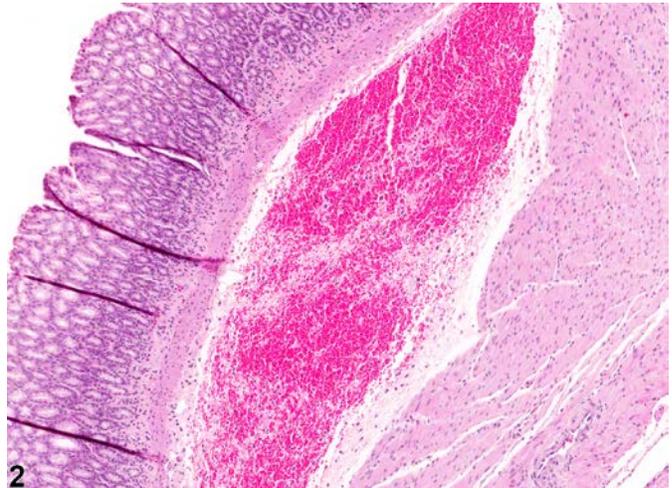
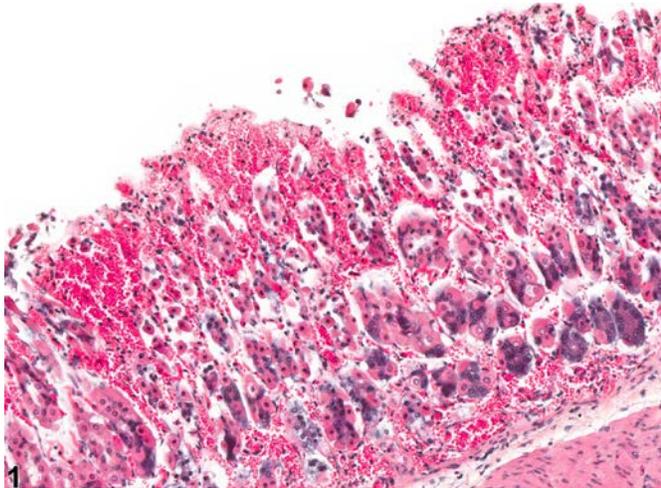




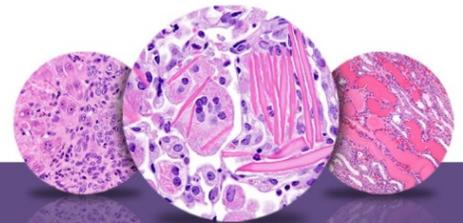
# NTP Nonneoplastic Lesion Atlas

## Stomach, Glandular Stomach – Hemorrhage



**Figure Legend:** **Figure 1** Stomach, Glandular stomach - Hemorrhage in a female B6C3F1 mouse from a subchronic study. There is hemorrhage in the mucosa. **Figure 2** Stomach, Glandular stomach - Hemorrhage in a male F344/N rat from a chronic study. There is hemorrhage in the submucosa. **Figure 3** Stomach, Glandular stomach - Hemorrhage in a male F344/N rat from a chronic study. There is hemorrhage in the mucosa and a vascular thrombus in the submucosa (arrow). **Figure 4** Stomach, Glandular stomach - Hemorrhage in a male F344/N rat from a chronic study (higher magnification of Figure 3). There is hemorrhage in the mucosa and a vascular thrombus in the submucosa (arrow).

**Comment:** Hemorrhage characterized by free red blood cells in the lamina propria (Figure 1), submucosa (Figure 2) or muscular wall of the stomach is uncommon and usually secondary to



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treatment-related inflammation, erosion, ulceration, necrosis, or thrombosis (Figure 3 and Figure 4, arrows).

**Recommendation:** Hemorrhage should be diagnosed and graded. Hemorrhage in an area of necrosis or inflammation is usually not diagnosed separately, unless it is a prominent component of the lesion, but should be described in the pathology narrative.

### **References:**

MacKenzie WF, Alison R. 1990. Heart. In: Pathology of the Fischer Rat (Boorman GA, Montgomery CA, MacKenzie WF, eds). Academic Press, San Diego, CA, 461-472.

Abstract: <http://www.ncbi.nlm.nih.gov/nlmcatalog/9002563>

### **Authors:**

Linda H. Kooistra, DVM, PhD, DACVP  
Pathologist  
Charles River Laboratories, Inc.  
Research Triangle Park, NC

Abraham Nyska, DVM, Diplomate ECVF, Fellow IATP  
Expert in Toxicologic Pathology  
Visiting Full Professor of Pathology  
Sackler School of Medicine, Tel Aviv University  
Timrat Israel