NTP Nonneoplastic Lesion Atlas

Stomach, Glandular Stomach – Pigment
**Stomach, Glandular Stomach – Pigment**

**Figure Legend:** 
**Figure 1** Stomach, Glandular stomach - Pigment in female B6C3F1 mouse from a chronic study. Pigment (likely hemosiderin) is present within a necrotic area of the mucosa. 
**Figure 2** Stomach, Glandular stomach - Pigment in female B6C3F1 mouse from a chronic study (higher magnification of Figure 1). Pigment (likely hemosiderin) is present within a necrotic area of the mucosa. 
**Figure 3** Stomach, Glandular stomach - Pigment in female F344/N rat from a chronic study. Pigment is present within a necrotic area of the mucosa. 
**Figure 4** Stomach, Glandular stomach - Pigment in female F344/N rat from a chronic study (higher magnification of Figure 1). Pigment is present within a necrotic area of the mucosa. 
**Figure 5** Stomach, Glandular stomach - Pigment in female F344/N rat from a chronic study. Pigment (likely hemosiderin) is present within the mucosa. 
**Figure 6** Stomach, Glandular stomach - Pigment in female F344/N rat from a chronic study (higher magnification of Figure 1). Pigment (likely hemosiderin) is present within the mucosa.

**Comment:** Focal to multifocal areas of pigment accumulation in epithelial cells of the glandular mucosa is occasionally noted (Figure 1, Figure 2, Figure 3, Figure 4, Figure 5 and Figure 6). In some cases the occurrence is sporadic and of unknown origin and is considered incidental or artifactual. Examples of pigmented material are breakdown products of hemoglobin (hematin, hematin-like, parasite hematin, hemosiderin), lipofuscin, and test article. Hemosiderin (golden-brown pigment), often within macrophages, is the most common. The presence of acid hematin-like pigment in the mucosa is suggestive of an ulcerative or erosive process not in the plane of histologic section.

**Recommendation:** Whenever present, this change should be diagnosed as “pigment” and graded. Severity grading depends on the number and size of pigmented areas present and on the density of pigment accumulation. The specific type of pigmented material should not be specified in the diagnosis unless special stains or other means are used for definitive diagnosis. However, in the narrative the pathologist may provide an opinion as to the type of pigment that is present.

**References:**
Full-text: [https://www.toxpath.org/ssdnc/GINonproliferativeRat.pdf](https://www.toxpath.org/ssdnc/GINonproliferativeRat.pdf)

References:


Authors:

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

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