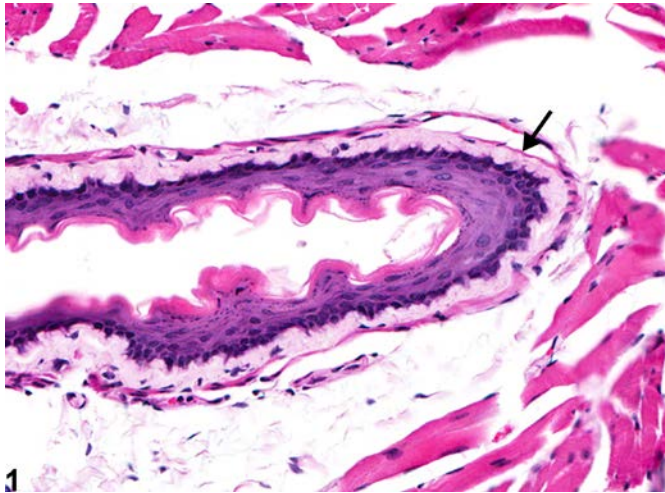


# NTP Nonneoplastic Lesion Atlas

## *Esophagus - Amyloid*



**Figure Legend: Figure 1** Esophagus - Amyloid in a male Swiss Webster mouse from a chronic study. There is a cellular, eosinophilic material (amyloid) in the submucosa of the esophagus (arrow).

**Comment:** Amyloidosis is a systemic disease that is rare in B6C3F1 mice, BALB/c and C3H mice but common in CD-1, A, Swiss Webster, SJL, and B6 mice and can be a cause of death. The incidence can be increased in association with fighting among group-housed males and with ectoparasitism. Amyloid appears as an amorphous, eosinophilic, hyaline, extracellular substance (Figure 1, arrow) that, with progressive accumulation, results in pressure atrophy of adjacent cells and tissue. Special stains such as Congo red can be used to confirm that the material is amyloid. Congo red stains amyloid orange to orange red and under polarized light imparts a characteristic light green birefringence that is often referred to as apple green. In the esophagus and small intestine, the disease appears to begin as a deposition of amyloid in the submucosa. In systemic amyloidosis, if amyloid is found in the esophagus, it is also likely to be found in spleen, liver, kidney, tongue, small intestine, and mesenteric lymph node. Amyloid deposits in the glomeruli of the kidney are usually the cause of death in animals that die with amyloidosis.

**Recommendation:** Whenever present, amyloid deposits should be diagnosed as “amyloid” and graded based on the extent of the amyloid deposits.



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## *Esophagus - Amyloid*

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