



NTP Nonneoplastic Lesion Atlas

Nose, Septum – Perforation

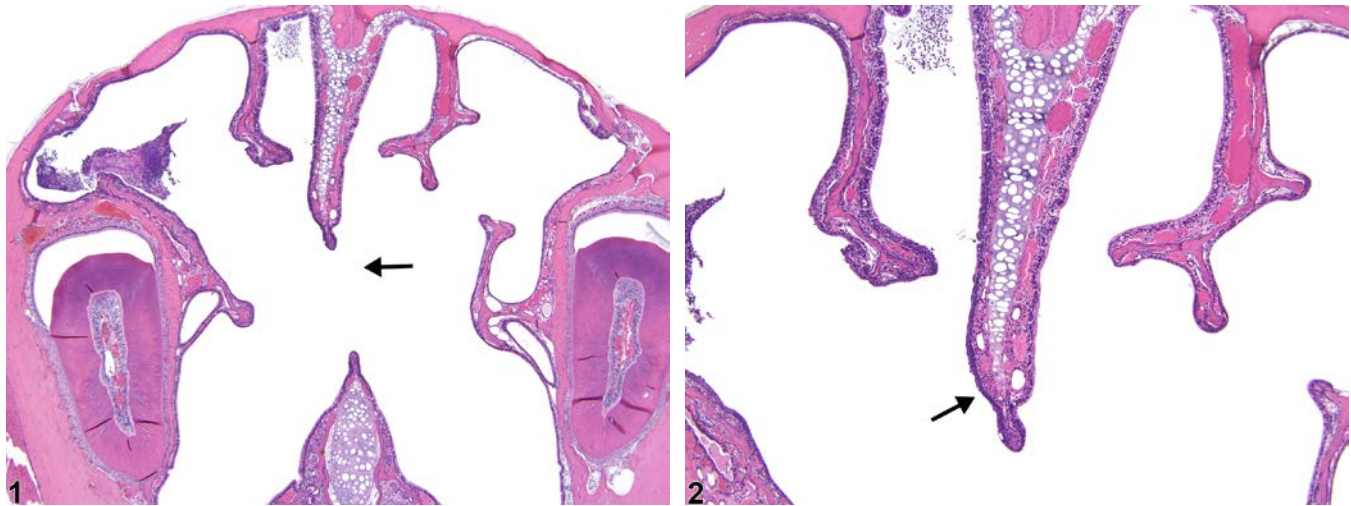


Figure Legend: **Figure 1** Nose, Septum - Perforation in a female B6C3F1/N mouse from a chronic study. A perforation is present in the nasal septum (arrow). **Figure 2** Nose, Septum - Perforation in a female B6C3F1/N mouse from a chronic study (higher magnification of Figure 1). Squamous metaplasia of the respiratory epithelium (arrow) is adjacent to the perforation.

Comment: Septal perforation (Figure 1 and Figure 2) has not been seen as a background lesion. It typically occurs after exposure to highly irritating agents that cause necrosis and ulceration of the mucosa and atrophy of the nasal turbinates. Therefore, it is typically preceded or accompanied by epithelial lesions, such as squamous metaplasia, ulceration or necrosis, inflammation, and turbinate atrophy. It is most commonly seen in chronic inhalation studies.

Recommendation: Septal perforation should be diagnosed whenever present but need not be graded. Other lesions, including epithelial lesions (degeneration, necrosis, ulceration, squamous metaplasia, etc.), turbinate atrophy, and inflammation, should be diagnosed separately.

Reference:

Monticello TM, Morgan KT, Uraih LC. 1990. Nonneoplastic nasal lesions in rats and mice. *Environ Health Perspect* 85:249-274.
Full Text: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1568333/>



NTP Nonneoplastic Lesion Atlas

Nose, Septum – Perforation

Authors:

Rodney A. Miller, DVM, PhD, DACVP
NC Pathology Group Manager
Senior Pathologist
Experimental Pathology Laboratories, Inc.
Research Triangle Park, NC

Mark F. Cesta, DVM, PhD, DACVP
Staff Scientist, NTP Pathologist
Cellular and Molecular Pathology Branch
Division of the National Toxicology Program
National Institute of Environmental Health Sciences
Research Triangle Park, NC