



NTP Nonneoplastic Lesion Atlas

Nose – Concretion

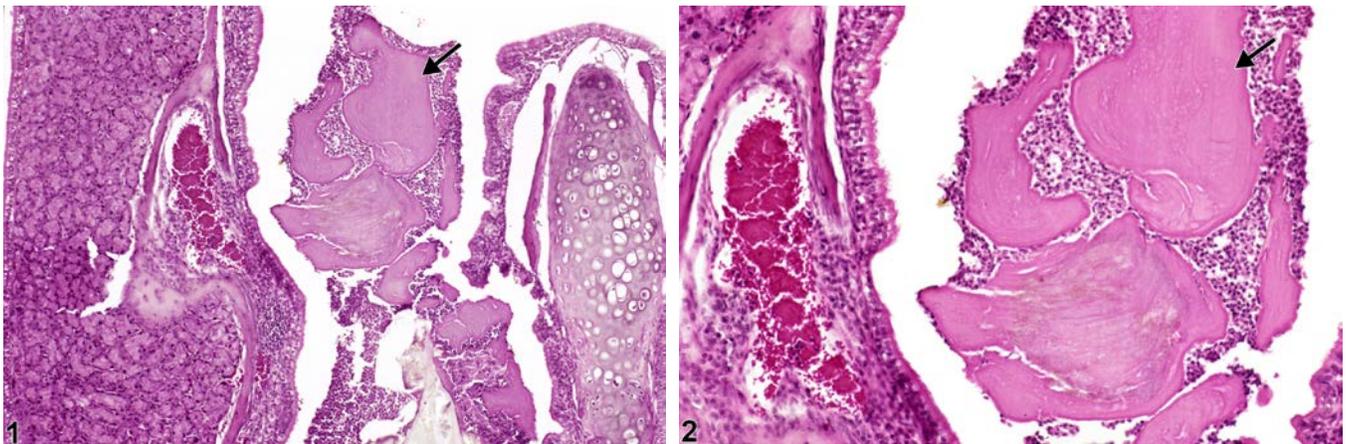


Figure Legend: **Figure 1** Nose - Concretion in a male B6C3F1/N mouse from a chronic study. Laminated eosinophilic material mixed with inflammatory cells is present in the meatus (arrow). **Figure 2** Nose - Concretion in a male B6C3F1/N mouse from a chronic study (higher magnification of Figure 1). Eosinophilic laminated material mixed with inflammatory cells is present in the meatus (arrow).

Comment: In the nasal cavity, concretions are almost always associated with inflammation (Figure 1 and Figure 2). Concretions are found within the meatuses and are composed of inspissated nasal secretions and/or exudate. Histologically, concretions consist of eosinophilic material, occasionally with embedded nuclear material, and are typically distinctly laminated. Concretions should be distinguished from corpora amylacea (shown in Renne et al. 2009), which are small, laminated, basophilic bodies that are infrequently seen in the respiratory mucosa and nasal gland lumina of rats and mice.

Recommendation: Since they are usually a consequence of inflammation, concretions may be considered a component of the inflammatory response and described in the pathology narrative rather than diagnosed separately. If, however, there is a treatment-related increase in the incidence of concretions, or if they occur in the absence of inflammation, then they must be diagnosed separately throughout that study and assigned a severity grade.

References:

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 – Concretion

References:

Renne R, Brix A, Harkema J, Kittel B, Lewis D, March T, Nagano K, Pino M, Rittinghausen S, Rosenbruch M, Tellier P, Wohrmann T. 2009. Proliferative and nonproliferative lesions of the rat and mouse respiratory tract. *Toxicol Pathol* 37(7 suppl):5S-73S.

Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/20032296>

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