Nose, Bone – Periosteal Proliferation

Figure Legend: Figure 1 Nose, Bone - Periosteal proliferation in a male F344/N rat from a chronic study. The thickening of the trabecular bone and increased number of osteoblasts are accompanied by inflammation and vascular dilation. Figure 2 Nose, Bone - Periosteal proliferation in a male F344/N rat from a chronic study. Thickening of the trabecular bone is accompanied by an increased number of osteoblasts.

Comment: Periosteal proliferation (Figure 1 and Figure 2) may be seen with exposure to severe irritants (e.g., tear gas) and is typically associated with epithelial necrosis, inflammation, squamous metaplasia, and other irritant lesions. Periosteal proliferation appears as thickening of the trabecular bone with increased numbers of osteoblasts.

Recommendation: Periosteal proliferation that is present in the absence of a mucosal lesion must be diagnosed and assigned a severity grade. If, however, this lesion is secondary to or a component of a mucosal lesion, it should not be diagnosed separately unless warranted by severity, but should be described in the pathology narrative.

References:

None
Nose, Bone – Periosteal Proliferation

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