



NTP Nonneoplastic Lesion Atlas

Ear – Ulcer

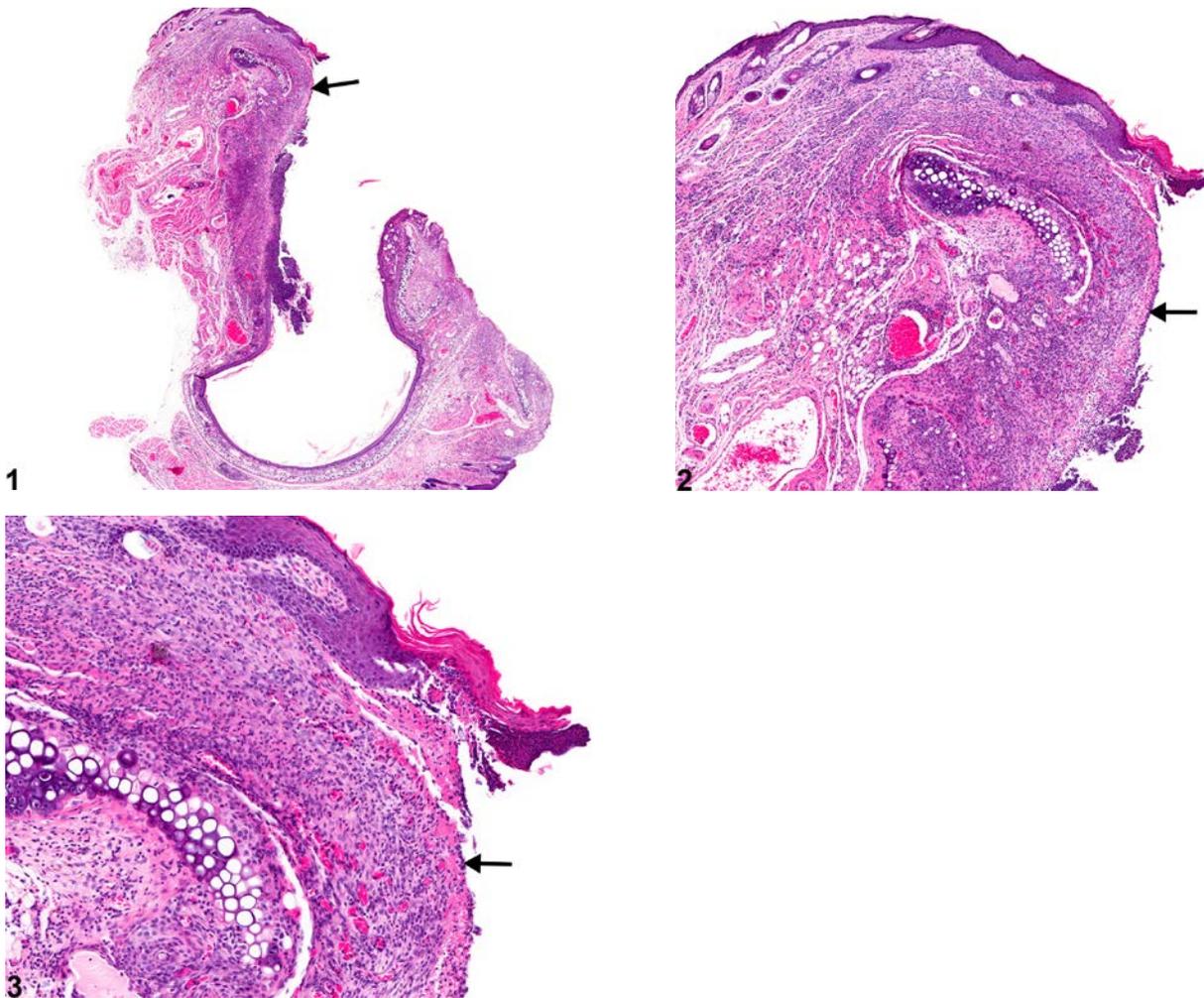
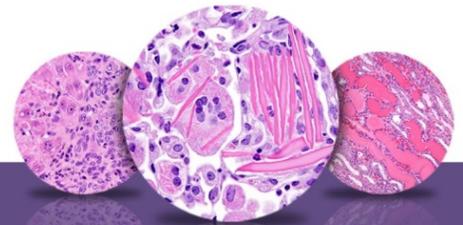


Figure Legend: **Figure 1** Ear - Ulcer in a male Swiss CD-1 mouse from a chronic study. An ulcer of the external ear canal epithelium; necrotic debris and neutrophils cover much of the ulcer (arrow).

Figure 2 Ear - Ulcer in a male Swiss CD-1 mouse from a chronic study (higher magnification of Figure 1). There is an ulcer (arrow) of the external ear canal epithelium. **Figure 3** Ear - Ulcer in a male Swiss CD-1 mouse from a chronic study (higher magnification of Figure 1). There is an ulcer (arrow) of the external ear canal epithelium; the adjacent epithelium is hyperplastic.

Comment: Ulcers are characterized by segmental or more extensive loss of the lining epithelium, including loss of the epithelial basement membrane with exposure of the underlying lamina propria (Figure 1, Figure 2, and Figure 3). Erosions also exhibit focal to extensive loss of some or all epithelial



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cell layers. However, in contrast to ulcers, erosions are distinguished by retention of an intact basement membrane. These lesions are typically accompanied by inflammation and are often covered by an exudative crust (Figure 1).

Recommendation: Erosions and ulcers in the ear should be diagnosed with an appropriate topography modifier (external ear, middle ear, etc.) and assigned a severity grade. Findings considered secondary to erosions and ulcers (congestion, hemorrhage, edema, inflammation, etc.) should not be diagnosed separately unless warranted by severity. The secondary lesions should, however, be described in the pathology narrative. If both erosions and ulcers are present in the same animal, then only ulcer (the more severe lesion) should be diagnosed.

References:

National Toxicology Program. 1995. NTP TR-444. Initiation/Promotion Study of o-Benzyl-p-Chlorophenol (CAS No. 120-32-1) in Swiss (CD-1[®]) Mice (Mouse Skin Study). NTP, Research Triangle Park, NC.

Abstract: <http://ntp.niehs.nih.gov/go/6032>

Yoshitomi K, Brown HR. 1990. Ear and pinna. In: Pathology of the Fischer Rat: Reference and Atlas (Boorman GA, Eustis SL, Elwell MR, Montgomery CA, MacKenzie WF, eds). Academic Press, San Diego, CA, 227-238.

Abstract: <http://www.ncbi.nlm.nih.gov/nlmcatalog/9002563>

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