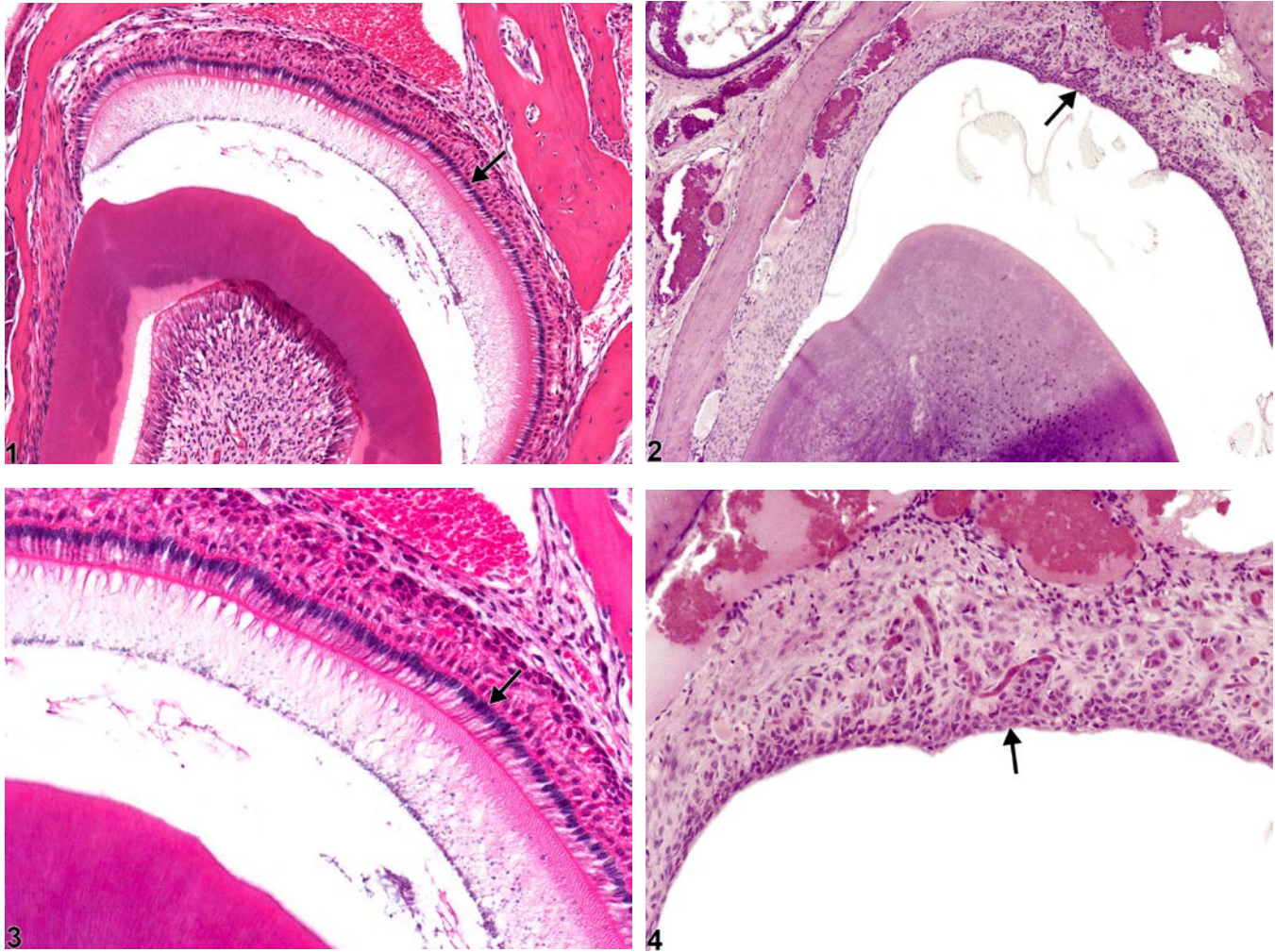


# NTP Nonneoplastic Lesion Atlas

## *Tooth, Ameloblast – Metaplasia, Squamous*



**Figure Legend:** **Figure 1** Normal ameloblasts (arrow) in a male B6C3F1 mouse from a chronic study. **Figure 2** Tooth, Ameloblast - Metaplasia, Squamous in a male F344/N rat from a chronic study. The ameloblasts (compare with Figure 1) have been replaced by squamous epithelium (arrow). **Figure 3** Normal ameloblasts (arrow) in a male B6C3F1 mouse from a chronic study (higher magnification of Figure 1). **Figure 4** Tooth, Ameloblast - Metaplasia, Squamous in a male F344/N rat from a chronic study (higher magnification of Figure 2). The ameloblasts (compare with Figure 3) have been replaced by squamous epithelium (arrow).

**Comment:** Squamous metaplasia can be seen following injury to the ameloblasts. While atrophy is characterized by decreased cytoplasm (shortening of individual ameloblasts), squamous metaplasia is



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characterized by loss of the columnar layer of ameloblasts and replacement by squamous epithelium (Figure 2 and Figure 4, arrows).

**Recommendation:** Squamous metaplasia of the ameloblasts should be diagnosed and graded whenever present. Severity grading for squamous metaplasia is based on the extent of the lesion and the number of layers of squamous cells in the lesion.

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