



NTP Nonneoplastic Lesion Atlas

Tooth, Dentin – Basophilic Granules

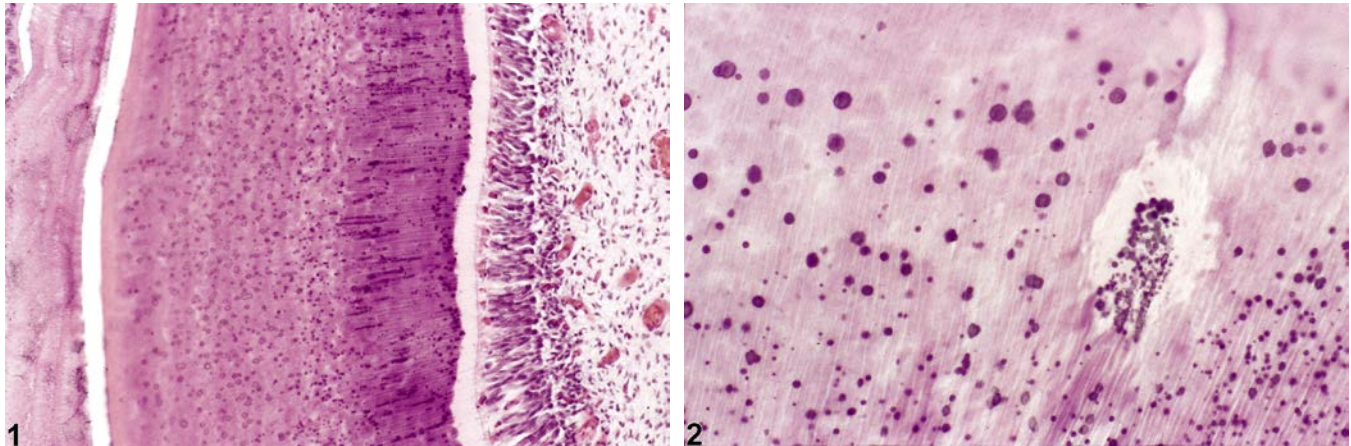


Figure Legend: **Figure 1** Tooth, Dentin - Basophilic granules in a male F344/N rat from a chronic study. There are numerous, small basophilic granules within the dentin. **Figure 2** Tooth, Dentin - Basophilic granules in a male F344/N rat from a chronic study. There are numerous, small basophilic granules within the dentin.

Comment: Basophilic granules in the dentin (Figure 1, Figure 2) are rarely seen in the NTP studies. They are small, round, basophilic globules that occur in a linear pattern within the dentin layer. They have been seen in the predentin and dentin in F344 rats exposed to sodium fluoride for 2 years. Similar deposits are reported to represent calcium fluoride crystal formation that occurs during decalcification of tooth/bone specimens.

Recommendation: Basophilic granules should be diagnosed and graded whenever present.

References

Lindemann G, Nylen MU. 1979. Calcium fluoride containing granules produced *in vitro* in rat bones. Scand J Dent Res 87:381-389.

Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/295141>

National Toxicology Program. 1996. NTP TR-393. Toxicology and Carcinogenesis Studies of Sodium Fluoride (CAS No. 7681-49-4) in F344/N Rats and B6C3F1 Mice (Drinking Water Studies). NTP, Research Triangle Park, NC.

Abstract: <http://ntp.niehs.nih.gov/go/12237>



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Authors:

Linda H. Kooistra, DVM, PhD, DACVP
Pathologist
Charles River Laboratories, Inc.
Research Triangle Park, NC

Abraham Nyska, DVM, Diplomate ECVF, Fellow IATP
Expert in Toxicologic Pathology
Visiting Full Professor of Pathology
Sackler School of Medicine, Tel Aviv University
Timrat Israel