



NTP Nonneoplastic Lesion Atlas

Lymph Node – Congestion



Figure Legend: Figure 1 Lymph node - Congestion in a female B6C3F1/N mouse from a chronic study. Numerous vessels are expanded by an excessive accumulation of blood (arrows). **Figure 2** Lymph node - Congestion in a female B6C3F1/N mouse from a chronic study (higher magnification of Figure 1). Blood vessels contain increased numbers of erythrocytes and other blood elements (arrows).

Comment: Congestion of blood vessels (e.g., capillaries or venules) may be seen in lymph nodes of rodents, particularly associated with angiectasis (Figure 1 and Figure 2, arrows). Congestion is characterized by excessive accumulation of blood within a vessel, due either to increased afflux or to obstruction of return flow. Congested vessels may or may not be dilated (angiectatic). In the lymph node, congestion should be distinguished from sinus erythrocytosis, hemorrhage, hemangioma, and hemangiosarcoma. Congestion differs from sinus erythrocytosis in that the accumulation of blood is within blood vessel lumens and not lymphatic sinuses. Congestion differs from hemorrhage in that erythrocytes and other blood components are intravascular and not extravasated. Congestion may accompany a hemangioma or hemangiosarcoma; however, the lesion is secondary and typically consists of normal blood components. Extravasated erythrocytes may be present with congestion, but in the absence of necrosis or other lesions, they are attributed to necropsy technique and considered to be a dissection-induced artifact.

Recommendation: When lymph node congestion is believed to be associated with treatment, it should be diagnosed and graded. If lymph node congestion is secondary to another lesion (e.g.,



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anglectasis or neoplasia) or believed to be the result of euthanasia, necropsy, or the manner in which the animal died, it should not be diagnosed but may be described in the pathology narrative.

References:

Elmore SA. 2006. Histopathology of the lymph nodes. Toxicol Pathol 34:425-454. Full Text: <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1892634/</u>

National Toxicology Program 2010. NTP TR-555. Toxicology and Carcinogenesis Studies of 1,2-Dibromo-2,4-Dicyanobutane (CAS No. 35691-65-7) in F344/N Rats and B6C3F1 Mice (Dermal Studies). NTP, Research Triangle Park, NC. Abstract: http://ntp.niehs.nih.gov/go/32614

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