

NTP Nonneoplastic Lesion Atlas

Skin – Vesicle

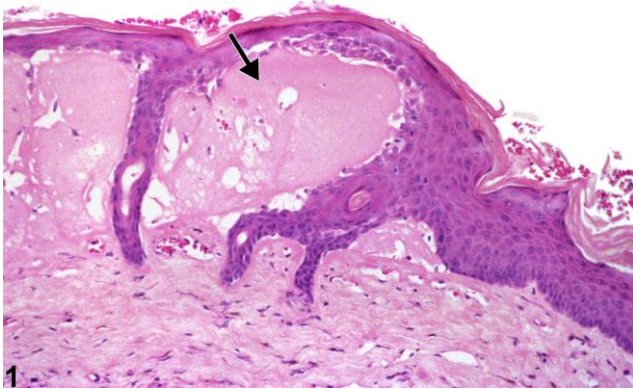
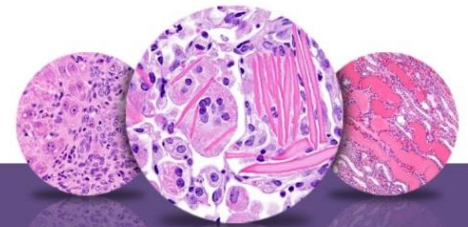


Figure Legend: Figure 1 Vesicle—subepidermal cystlike space that contains serous fluid (arrow) in a female B6C3F1 mouse from a chronic study.

Comment: Vesicles are small, circumscribed, subcorneal (intraepidermal) or subepidermal cystlike spaces that contain serous fluid (Figure 1). They represent detachment of damaged epithelium with the resulting space being filled by fluid. Vesicles may form after exposure to caustic agents. They may also form as part of an allergic response in the skin in which edema and congestion are seen initially, followed eventually by vesicle formation. Vesicles typically occur in the initial stages of acute inflammation after skin injury but are not often present at the end of a study. Consequently, they are a relatively rare finding.

Recommendation: Because they can provide information regarding the severity of a response to a test agent, or they may suggest an allergic type of response, vesicles should be recorded and graded whenever present. Grading should be based on size and number. Other associated lesions in the skin, such as inflammation or necrosis, should be diagnosed separately.



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References:

Elwell MR, Stedman MA, Kovatch RM. 1990. Skin and subcutis. In: Pathology of the Fischer Rat: Reference and Atlas (Boorman GA, Eustis SL, Elwell MR, Montgomery CA, MacKenzie WF, eds). Academic Press, San Diego, 261–277.

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

Klein-Szanto AJP, Conti CJ. 2002. Skin and oral mucosa. In: Handbook of Toxicologic Pathology, 2nd ed (Haschek WM, Rousseaux CG, Wallig MA, eds). Academic Press, San Diego, 2:85–116.

Abstract: <http://www.sciencedirect.com/science/book/9780123302151>

Peckham JC, Heider K. 1999. Skin and subcutis. In: Pathology of the Mouse: Reference and Atlas (Maronpot RR, Boorman GA, Gaul BW, eds). Cache River Press, Vienna, IL, 555–612.

Abstract: <http://www.cacheriverpress.com/books/pathmouse.htm>

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