

NTP Nonneoplastic Lesion Atlas

Liver – Atrophy

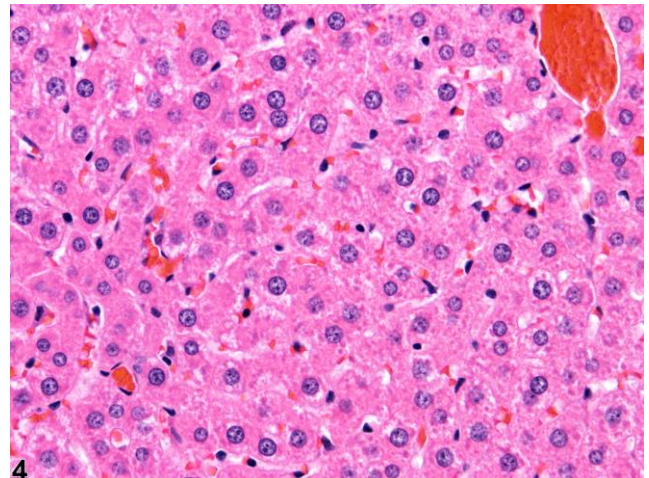
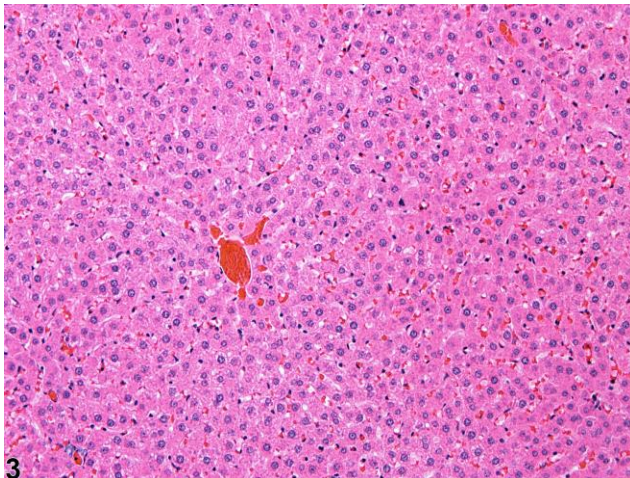
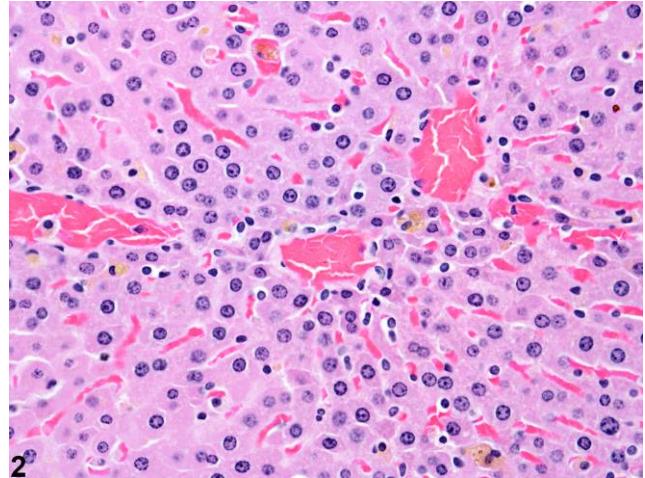
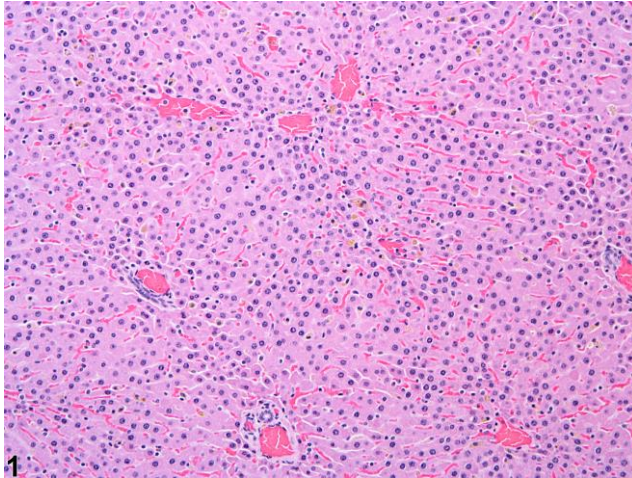
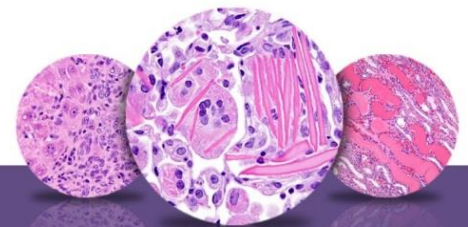


Figure Legend: **Figure 1** Atrophy in a female F344/N rat from a subchronic study. **Figure 2** Atrophy in a female F344/N rat from a subchronic study. Higher magnification of Figure 1. **Figure 3** Normal liver in a control female F344/N rat from a subchronic study. **Figure 4** Normal liver in a control female F344/N rat from a subchronic study. Higher magnification of Figure 3.

Comment: Hepatic atrophy is seen with severe caloric deficits as well as when animals are exposed to high doses of xenobiotics. The size of the hepatocytes and their nuclei is reduced, with nuclei appearing more closely spaced. There is typically no evidence of glycogen accumulation, and pigmentation (most likely lipofuscin) representative of cellular breakdown



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may be present in Kupffer cells and hepatocytes (Figure 2). Figure 3 and Figure 4 represent a normal liver.

Recommendation: Except in dramatic examples, as in this case, diagnosis of hepatic atrophy is a difficult morphologic determination and may be better assessed by organ weight. Grading of hepatic atrophy is likewise difficult. If it becomes necessary to accurately document subtle atrophic changes, a blind evaluation of the slides comparing the relevant dose groups with controls is recommended.

References:

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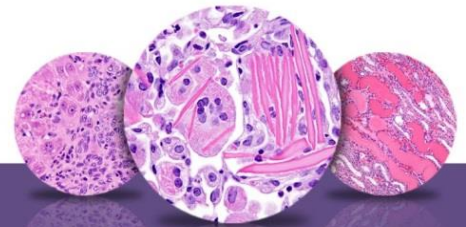
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