

NTP Nonneoplastic Lesion Atlas

Thyroid Gland, Follicle, Epithelium – Hyperplasia

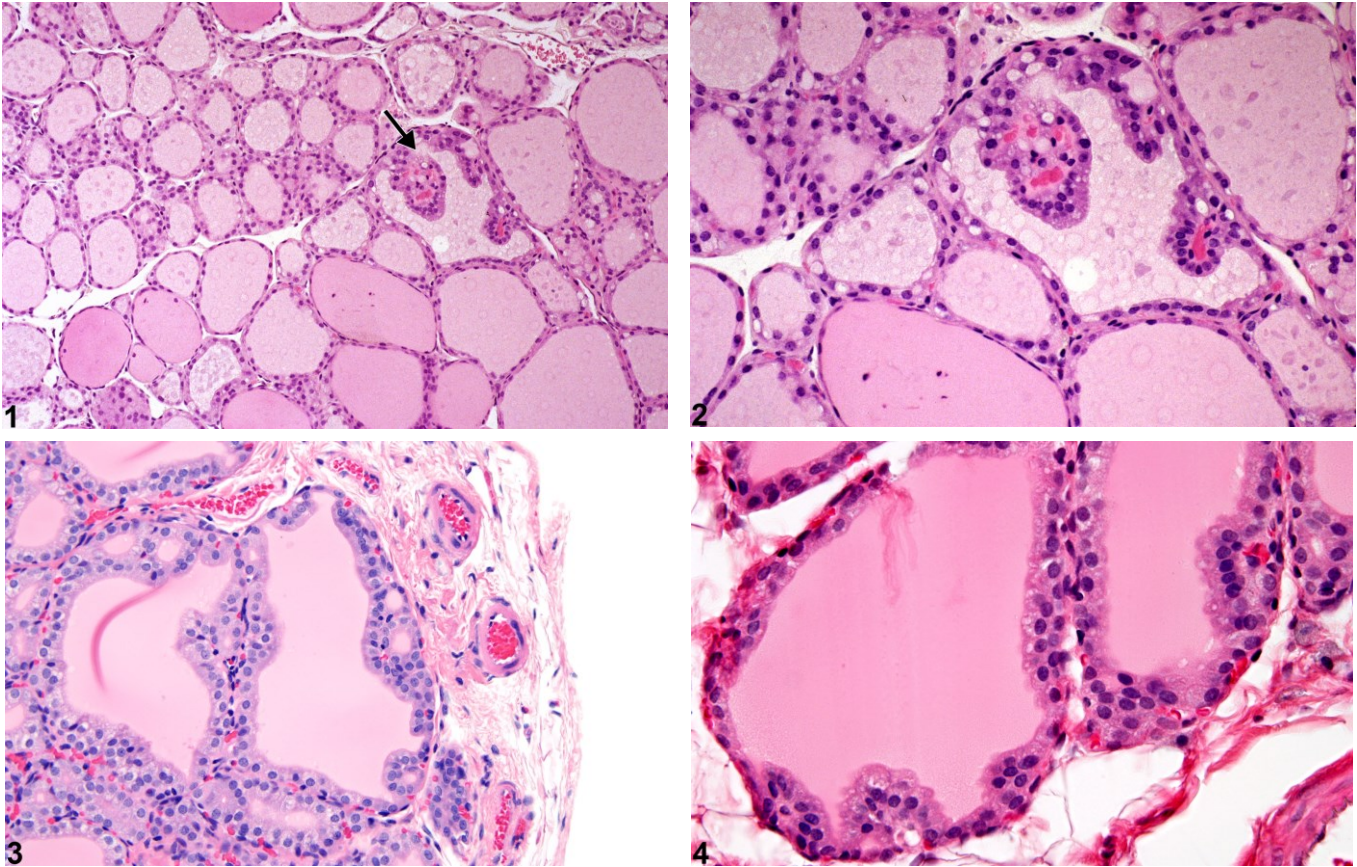
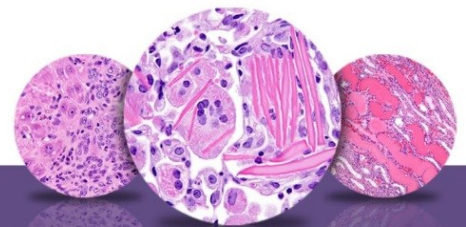


Figure Legend: **Figure 1** Thyroid gland, Follicle, Epithelium - Hyperplasia in a male B6C3F1 mouse from a chronic study. Proliferative projections of hyperplastic epithelium are present in a single follicle (arrow). **Figure 2** Thyroid gland, Follicle, Epithelium - Hyperplasia in a male B6C3F1 mouse from a chronic study. Higher magnification of Figure 1 shows the proliferative projections of hyperplastic epithelium in more detail. **Figure 3** Thyroid gland, Follicle, Epithelium - Hyperplasia in a male F344/N rat from a subchronic study. Some degree of hypertrophy is present in this example of minimal epithelial hyperplasia. **Figure 4** Thyroid gland, Follicle, Epithelium - Hyperplasia in a male F344/N rat in a subchronic study. There is minimal hyperplasia of the follicular epithelium with crowding of the nuclei and minimal protrusion into the follicular lumen.

Comment: Hyperplasia of follicular epithelium may be focal, diffuse, or sometimes cystic. Focal or multifocal follicular hyperplasia can be present in a single or in a few follicles. Focal hyperplasia is not encapsulated and does not compress surrounding parenchyma, which differentiates it from benign



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tumors. Affected follicles may be small with minimal colloid or large and irregular with papillary projections of hyperplastic epithelium extending into the follicular lumen (Figure 1 and Figure 2). Thyroid follicular hypertrophy and hyperplasia often occur together (Figure 3). Hyperplasia characterized by crowding of follicular epithelium nuclei and minimal protrusion into the follicular lumen may occur (Figure 4).

Recommendation: Although follicular hyperplasia can occur spontaneously, it should be diagnosed and given a severity grade whenever present. Severity may be based on the percentage of the gland involved and the morphologic complexity of the hyperplasia. The nature and extent of the hyperplasia and whether it is unilateral or bilateral should be described in the pathology narrative. Distinction between focal, diffuse, and cystic thyroid follicular hyperplasia is recommended and should be included as a qualifier of the diagnosis. The nature of any associated hypertrophy in follicles with hyperplasia should not be diagnosed separately, unless warranted by severity. If not diagnosed, hypertrophy should be described in the pathology narrative.

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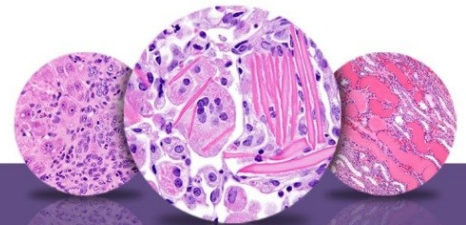
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