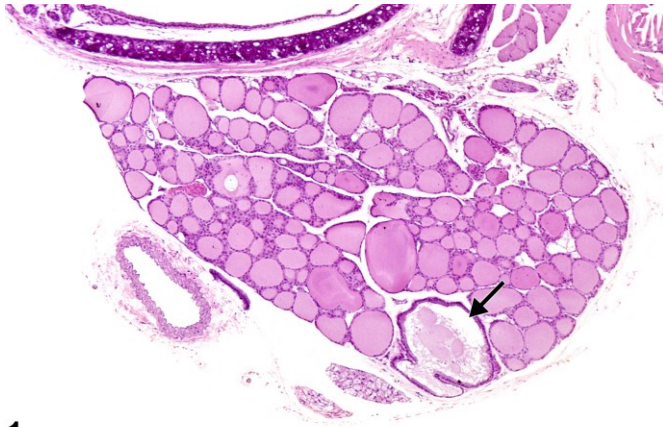
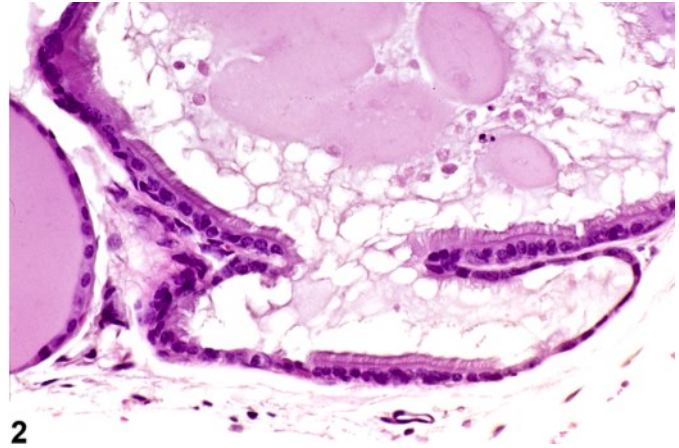


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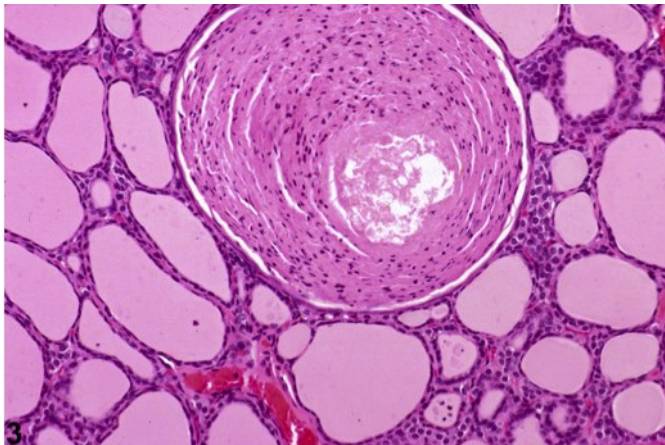
Thyroid Gland – Cyst, Congenital



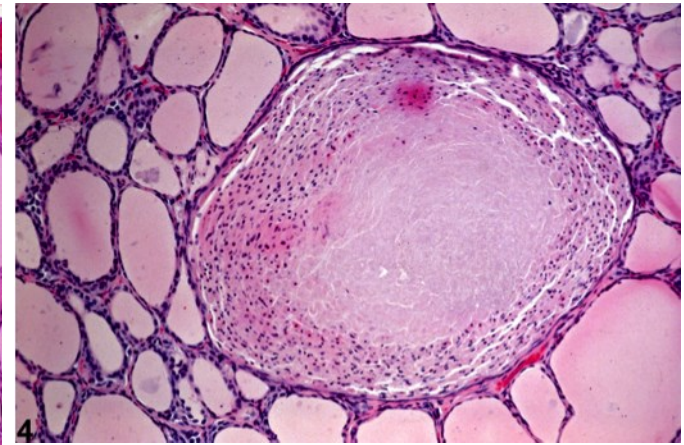
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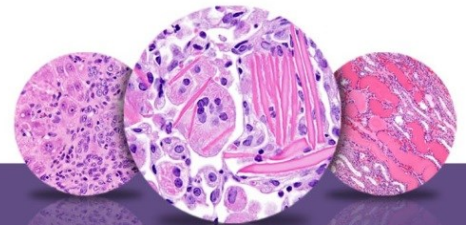
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4

Figure Legend: **Figure 1** Thyroid gland - Cyst, Congenital in a female F344 rat from a chronic study. An enlarged follicle is present (arrow). **Figure 2** Thyroid gland - Cyst, Congenital in a female F344 rat from a chronic study. Higher magnification of the enlarged follicle in Figure 1 shows the ciliated epithelium lining part of the follicle. **Figure 3** Thyroid gland - Cyst, Congenital in a male B6C3F1 mouse from a chronic study. A cystic follicle containing keratinized material is present. **Figure 4** Thyroid gland - Cyst, Congenital in a male B6C3F1 mouse from a chronic study. There is a cystic follicle containing keratinized material.

Comment: Cysts found in the thyroid and adjacent parathyroid represent embryonal rests and may be lined by flattened or ciliated epithelium (Figure 1 and Figure 2). When filled with keratinized material (Figure 3 and Figure 4), they are typically considered to be ultimobranchial cysts; however, ultimobranchial cysts can sometimes be lined by ciliated epithelium. Thyroglossal duct cysts, on the other hand, are usually centrally located and lined by multilayered thyroidogenic epithelium. However,



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given the difficulty in precisely classifying cysts, the more generic nomenclature of “congenital cyst” is preferred. Since chronic studies may incorporate in utero exposures, developmental alterations related to treatment could influence the presence and ultimate appearance of congenital thyroid cysts.

Recommendation: Congenital cysts should be diagnosed whenever present. Grading of cysts is not necessary unless the pathologist feels grading would highlight a treatment effect.

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