Heart – Atrophy

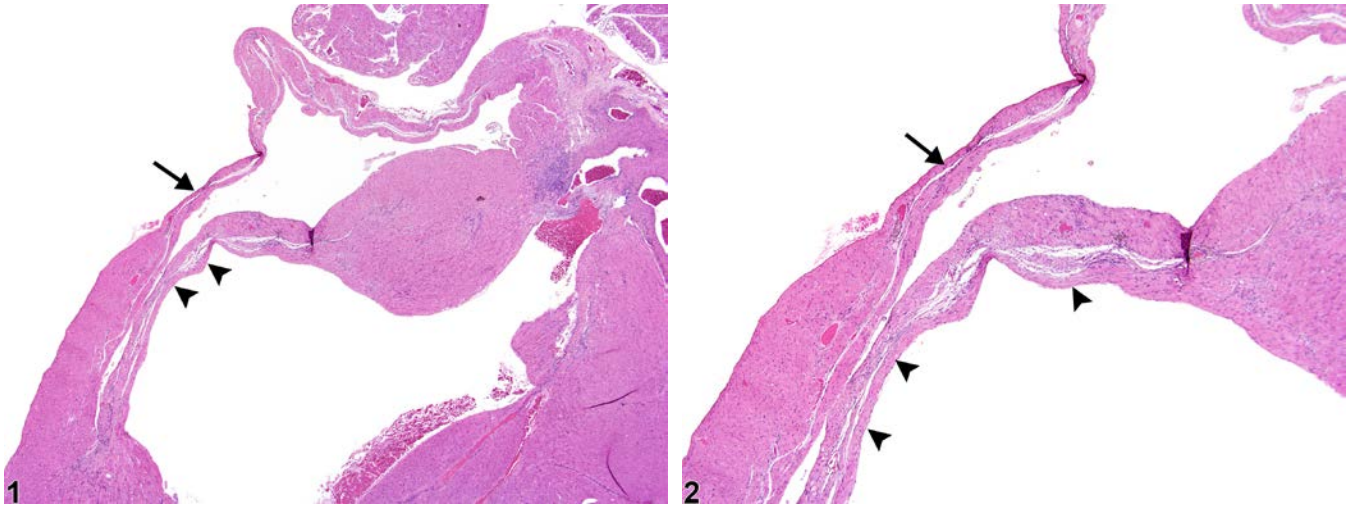

Figure Legend: Figure 1 Heart - Atrophy in a male B6C3F1/N mouse from a chronic study. Thinning of the right ventricular wall (arrow) and interventricular septum (arrowheads) is present. **Figure 2** Heart - Atrophy in a male B6C3F1/N mouse from a chronic study (higher magnification of Figure 1). Atrophy is present in the right ventricular wall (arrow) and interventricular septum (arrowheads).

Comment: Atrophy of an entire organ is typically a gross diagnosis and may be confirmed with a decrease in organ weight. Histologically, cardiac atrophy is characterized by ventricular wall thinning and a decrease in cardiomyocyte cell size (Figure 1 and Figure 2). An observed decrease in cell size may be perceived as an increase in nuclear density. The exact mechanism of cardiomyocyte atrophy in the absence of concomitant degenerative disease is unknown but may be demonstrated in the mouse or rat via mechanical unloading or reduced hemodynamic demand.

Recommendation: Heart - Atrophy should be recorded and graded based on the extent and distribution of the lesion. The location (e.g., atrium, ventricle) should be described in the narrative.

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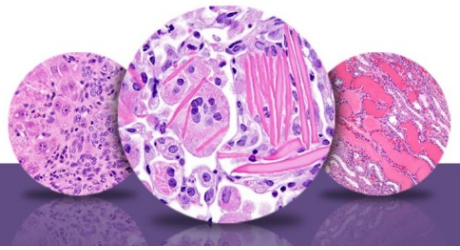

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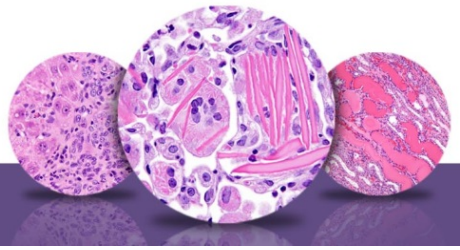

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