Skeletal Muscle – Cyst

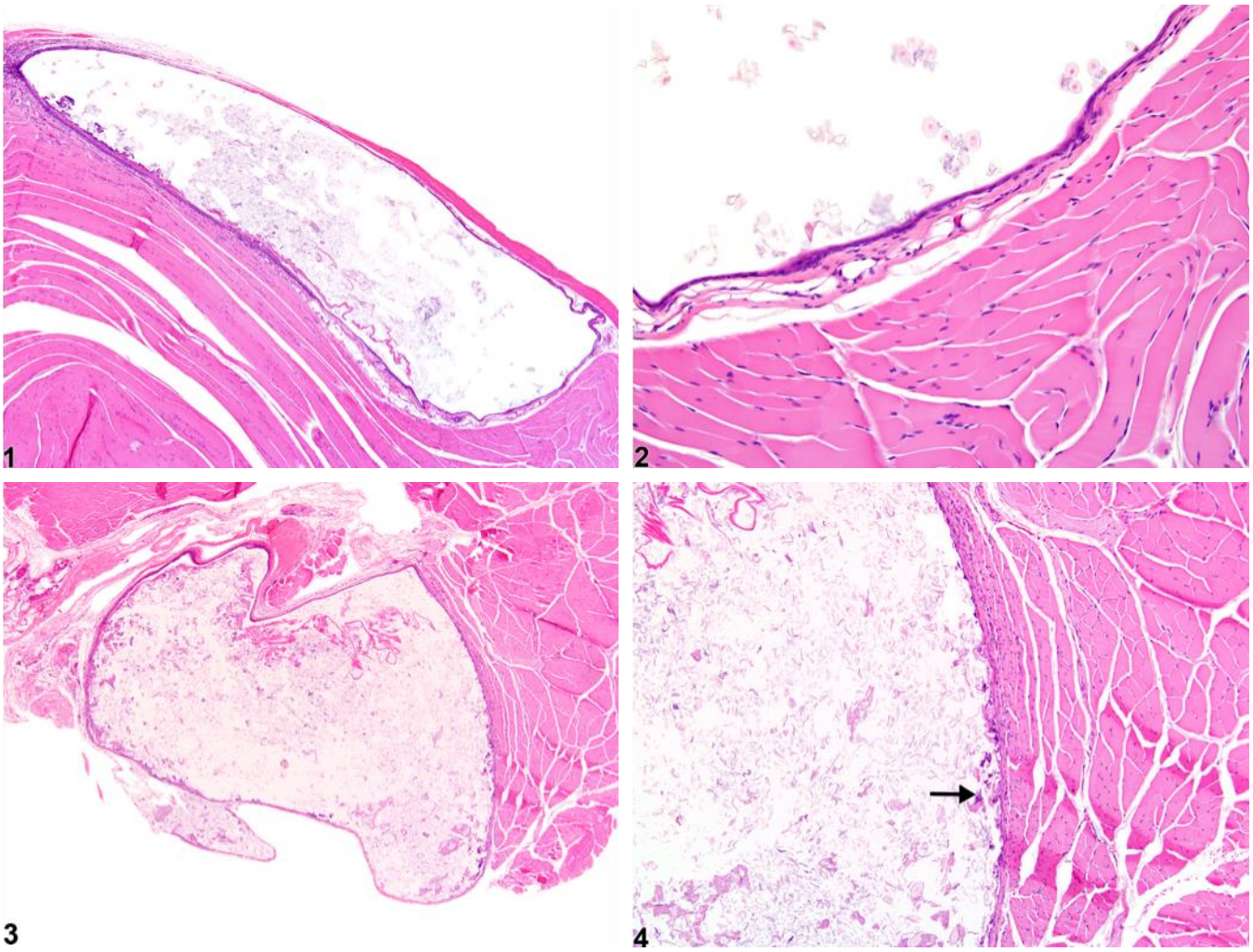
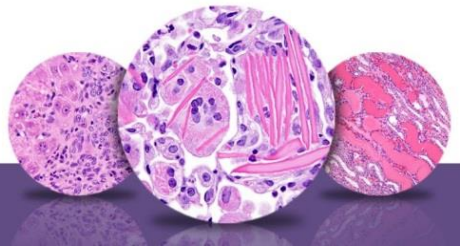


Figure Legend: **Figure 1** Skeletal muscle - Cyst in a female F344/N rat from a chronic study. A thin-walled epithelium-lined cyst is present within skeletal muscle. **Figure 2** Skeletal muscle - Cyst in a female F344/N rat from a chronic study (higher magnification of Figure 1). There is a flattened epithelial cyst wall with cross sections of hair within the lumen. **Figure 3** Skeletal muscle - Cyst in a female F344/N rat from a chronic study. A thin-walled cyst partially lined by flattened epithelium and containing keratin debris is present. **Figure 4** Skeletal muscle - Cyst in a female F344/N rat from a chronic study (higher magnification of Figure 3). There is necrosis of the epithelial lining (arrow) and keratin debris within the lumen of the cyst.



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Comment: Epithelium-lined cysts can develop in skeletal muscle (Figure 1, Figure 2, Figure 3, and Figure 4). Depending upon their size, compression of adjacent myofibers can occur. The cystic structures can be empty or contain variable amounts of keratin, hair fragments, and/or cellular debris. Joints are a common place for cystic lesions to occur; however, synovial cysts are more common in these regions. Synovial cysts are lined with synovial cells, contain fluid, and may communicate with the adjacent joint.

Parasitic cysts are sometimes present within skeletal muscle. While *Sarcocystis muris* does infect skeletal muscle in rats and mice, it is not common in well-managed rodent colonies and is generally not associated with accompanying inflammation. If accompanying lesions are present, they are primarily degenerative in nature.

Recommendation: While skeletal muscle cysts are often incidental lesions, their presence should be recorded. A severity grade does not need to be assigned. Accompanying myopathic changes do not need to be diagnosed separately unless warranted by severity. The nature of the lining cells, presence and nature of luminal contents, and regional effects on adjacent skeletal muscle fibers should be addressed in the narrative.

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Author:

Torrie A. Crabbs, DVM, DACVP
Pathologist
Experimental Pathology Laboratories, Inc.
Research Triangle Park, NC