Histopathological and Immunohistochemical Characterization of Spontaneous Uterine Leiomyomas in Two Captive Asian Elephants


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Abstract
Two captive female Asian elephants (Elephas maximus) in Thailand were euthanatized after prolonged recumbency, weakness, and unresponsive treatment. Necropsy revealed multinodular masses of 5-10 cm in diameter which were irregular, large, white and firm in consistency scattered throughout the uterine horns and uteri of both the elephants. Histologically, the tumors displayed mildly pleomorphic, spindle-shaped cells arranged in interlacing pattern interpreted as muscle bundles. The bundles of the muscle cells were interspersed by small amounts of collagen fibers and blood vessels. For immunohistochemistry, the tumor cells showed diffuse positivity for vimentin, desmin, and smooth muscle actin. Based on the pathological results, uterine leiomyomas were diagnosed. This study describes the morphology and immunohistochemical characteristics of the uterine smooth muscle tumor in Asian elephants.

Keywords
Asian elephant; histopathology; immunohistochemistry; uterine leiomyomas

Links