RESUMO SIMPLES - OUTRAS ÁREAS TEMÁTICAS

CORNEAL FIBROPAPILLOMA IN A FREE-LIVING GREEN TURTLE (CHELONIA MYDAS)

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Fibropapillomatosis (FP) is a panzootic and neoplastic disease of sea turtles, characterized by the occasional involvement of visceral fibromas and single or multiple fibroepithelial growths of the skin. FP was initially discovered in green sea turtles (Chelonia mydas) in Florida in 1938, Hawaii in 1958, and the Cayman Islands in 1980. The association of Chelonid alphaherpesvirus 5 (ChHV5) with FP and the latency characteristic attributed to this virus support the current hypothesis that the etiology of FP is multifactorial. In Brazil, the disease has been widely documented over the last few decades, especially in C. mydas populations that use coastal areas as feeding and resting grounds. Cases have been described in different states, highlighting the wide distribution of the disease in the country. In this report, we present the macroscopic and histological findings of ocular fibropapillomatosis in a sea turtle. A free-living,

juvenile, female green turtle (Chelonia mydas), found alive in Arraial do Cabo, Rio de Janeiro, Brazil, was submitted to necropsy on April 15, 2023, from the Aquatic Biota Monitoring Information System (SIMBA). A histopathological examination was performed at the Pathology Sector (SAP) from the Federal Rural University of Rio de Janeiro (UFRuralRJ). External examination revealed weakness, dehydration, cachexia, and a high number of fibropapillomas on all flippers, the ocular region, and the cervical region. Due to the high number of fibropapillomas, euthanasia was performed. Grossly, the masses were multinodular to digitiform, with an irregular and lobulated brown surface, mainly in the mucocutaneous regions of the eyes, mouth, nostrils, and joints of the forelimbs. On sectioning, the surface was white, firm, homogeneous, and smooth. Histopathological examination revealed a well-defined, non-encapsulated, infiltrative, multilobulated, and digitiform neoplastic proliferation in the conjunctiva, moderately cellular, within a fibrocollagenous stroma of the epidermis and dermis. The epidermis was diffusely thickened with traces of nuclei (parakeratotic hyperkeratosis). The neoplastic epithelial cells were oval to fusiform, with distinct borders, scant and basophilic cytoplasm. The nucleus was oval to fusiform, paracentral, with sparse chromatin and evidence of a nucleolus. There was neoplastic proliferation of fibroblasts in bundles in the dermis. Discrete anisocytosis and anisokaryosis were observed. Rare mitotic figures were found in 10 high-power fields (40x). Parasite eggs compatible with spirochetes were detected in eye tissue samples. The findings suggest that the progression to a terminal stage likely resulted from the interaction between the extensive tumor burden and parasitic co-infection, culminating in progressive debilitation. Loss of visual acuity can be devastating for a wild turtle, as it severely impairs its ability to swim and feed. In the absence of co-infections, fibropapillomatosis tends to have a chronic course, with stabilization or even spontaneous regression of lesions, often consistent with partial or complete recovery after treatment. Thus, the parasitic co-infection was likely a determining factor in the accelerated worsening observed in this case. We reinforce the relevance of diagnosis, continuous monitoring of free-ranging populations, and investigation of environmental and infectious factors that may aggravate the clinical course of fibropapillomatosis in sea turtles.

Palavras-chave: veterinary pathology; reptile diseases; free-living turtles; ocular fibropapillomatosis; histopathology.