Amyloid Producing Odontogenic Tumor in a 13 Years Old Tiger

(Panthera Tigris Tigris)

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Epithelial odontogenic tumors are uncommon in domestic animals and most of the reported cases being dogs. One subtype, so called as amyloid producing odontogenic tumor (APOT, previously called calcifying epithelial odontogenic tumor) is generally located in the mandible with tendency to be slow growing but occasionally causes bone destruction and displacement of teeth. Histologically, the neoplasm is characterized by epithelial proliferation, mineralization in the epithelium and stroma, and deposition of amyloid. In this report, mandibular APOT is described in a 13- year-old male tiger (Panthera tigris tigris) that has been kept in the Everland Zoological Garden, Korea. The tiger was euthanized due to poor prognosis after suffering from extensively growing mass at the gingiva. On necropsy, the gingiva of mandibular symphysis was markedly enlarged and hard. And mandibular bone was destructed by expansive growth. Histologically, the neoplastic mass is consisted of odontogenic epithelial cells with multiple nodular amyloid deposits as stained by Congo Red. In the area of cyst formation, lining epithelium showed squamous metaplasia with keratin production. Dystrophic calcification, smaller foci of irregular basophilic material withspheroidal and laminated structure, so called Liesengang rings were also noted. The diagnosis was based on the results of light microscopy and special staining. This appears to be the first reported APOT in tiger.

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