Case Report: Systemic Candidiasis in a Captured Yellow-Headed Tortoise (*Indotestudo elongata*)

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ABSTRACT A free-living, female yellow-headed tortoise (*Indotestudo elongata*) was rescued and treated for a laceration wound without improvement, and the tortoise died after two months of treatment. At necropsy, in addition to the skin laceration, multiple whitish-to-yellowish nodules scattered on various visceral organs. The nodular lesions were characterized by coagulative necrosis and pyogranuloma with intrallesional yeast-like organisms under microscopy. Necrotic nodules were stained using acid-fast staining and screened using polymerase chain reaction assay for *Mycobacterium tuberculosis* revealed negative results. The periodic acid Schiff (PAS) and immunohistochemistry (IHC) staining revealed positive results for *Candida albicans*. Based on these analytical results, a case of rare systemic infection of candidiasis in a tortoise is reported. [Chan FT, Hsuan SL, Chang SC, Lin PI, Wang LM, Yang CL, Lee WC, Chien MS, Chang WF, Kuo MJ, and * Liao JW. Systemic Candidiasis in a Captured Yellow-Headed Tortoise (*Indotestudo elongata*). Taiwan Vet J 37 (1): 30-35, 2011. * Corresponding author TEL: 886-4-22840894 ext. 406, FAX: 886-4-22862073, E-mail: jwliao@dragon.nchu.edu.tw]

Key words: Candidiasis, *Indotestudo elongata*, pyogranuloma, systemic infection, tortoise.

INTRODUCTION

Yellow-head tortoises (*Indotestudo elongata*) habitat mainly in the southern Asia, including the forests around the tropic and subtropical areas. The body of yellow-head tortoises is small to middle in size. The suitable temperature and humidity are around 26-30°C and 60-80%, respectively. However, mycotic diseases of reptiles caused by hyphomycetes and zygomycetes have been described mostly as case reports [14]. Usually reptiles colonized with yeasts do not reveal significant symptoms. In a review on the prevalence of yeasts in reptiles, postmortem examinations revealed that intestines of 80.6% of animals carried yeasts [8]. In general, virulence in Candida is reported to be highest in *C. albicans*, but *C. tropicalis, C. parapsilosis, C. krusei* and *C. glabrata* may also occasionally cause infections in humans and animals [12]. Deficiencies in housing, e.g. high humidity, poor water quality or overcrowding, poor diet and inadequate vitamin...