Aural Abscess in a Red-Eared Slider Turtle *(Trachemys scripta elegans)*

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Abstract: In this report, bilateral aural abscess and its treatment in a 3-years-old, red-eared slider turtle (*Trachemys scripta elegans*) presented with complaints of swelling on both sides of the head to the clinic was mentioned. Surgical removal of aural abscess was performed for both side contents under medetomidine HCl and ketamine HCl anaesthesia. After flushing of abscess pouch with sterile saline, the incision was closed with simple interrupted sutures and intramuscularly gentamycin was prescribed postoperatively. The patient recovered completely after the treatment and a recurrence did not occur. Considering the increasing number of turtles as a pet, this simple and effective treatment and its results were thought to be suitable for to share.
Keywords: *Aural abscess, Red-eared slider turtle, Surgical treatment, Trachemys scripta elegans, Tympanic cavity*

Bir Kırmızı Yanaklı Su Kaplumbağasında (*Trachemys scripta elegans*) Kulak Apsesi

Özet: Bu raporda, başının her iki yanında şişkinlik şikayetiyle kliniğimize getirilen 3 yaşlı kırmızı yanaklı su kaplumbağası (*Trachemys scripta elegans*)'nda bilateral kulak apsesi ve sağaltımı sunulmaktadır. Kulak apseseleri her iki tarafta da medetomidin HCl ve Ketamin HCl anestezisi altında cerrahi olarak uzaklaştırılmıştır. Apse keselerinin steril serum fizyolojik ile yıkanmasından sonra ensizyon basit ayrı dikişler ile kapatılmış ve postoperatif olarak gentamisin reçete edilmiştir. Hasta tedaviden sonra tamamen iyileşmiş ve nüks görülmemiştir. Kaplumbağaların pet hayvanı olarak artan sayısı göz önünde bulundurulduğunda, bu basit ve etkili tedavi ve elde edilen sonuçların paylaşılması uygun bulunmuştur.
Anahtar Kelimeler: *Kulak apsesi, Timpanik kavite, Kırmızı yanaklı su kaplumbağası, Cerrahi tedavi*

Introduction

Aural abscesses are common health problem that was many times reported before in eastern box turtles (*Terrapene carolina carolina*) (Holladay et al., 2001; Brown et al., 2003; Joyner et al., 2006). Also, a few cases of aural abscesses were reported before in red-eared slider turtles (*Trachemys scripta elegans*) (Yardımcı et al., 2010). Certain etiologic factors of the diseases are unknown but poor hygienic conditions, oro-fecal contamination, upper respiratory tract infections, vitamin A deficiency or body burdens of vitamin A disruptors such as organochlorine compounds (Poon et al., 1995; Grasman, 1996) may be responsible for emergence of the disease (Holladay et al., 2001; Rosskop and Shindo, 2003; McArthur, 2004). Treatment of the aural abscesses, which mostly occurs bilaterally, is usually surgical because of failure of antibiotics penetration into the abscess pouch (McArthur, 2004).

Case History

A red-eared slider turtle (*Trachemys scripta elegans*) at the age of 3 which was presented complaints of swelling on both sides of the head were discussed (Fig. 1). According to the information obtained from owner, regional deformations at the level of both ear canals were noticed two months ago and they became larger over time. Diet consisted of completely balanced commercial stick turtle food. As a result of patient story and clinical examination, bilateral aural abscess was diagnosed and surgical removals of the contents were decided. There was no general condition impairment or other clinical abnormalities to pose a risk to general anesthesia. Medetomidine (0.2 mg/kg, Domitor®, Pfizer, Turkey) and ketamine HCl (10 mg/kg, Alfamine®, Ege Vet, Turkey) combination was administered intramuscularly for anesthesia. Incision was made craniodorsal line of abscesses which was detected as the thinnest area of the abscess wall for both sides. Then, yellowish firm material was entirely removed with the aid of a retractor (Fig. 2). After irrigation of the region with sterile saline, the incision was closed with simple interrupted sutures (4/0 Monosorb®, Sutures Ltd, UK) (Fig. 3). Postoperatively, intramuscularly gentamycin injection (Gentamisin® 40 mg, Deva Co., Turkey) at a dosage of 2 mg/kg was prescribed every 72 hours for four times. The telephone reports at fifteenth day, the first month and the third month confirmed that the patient recovered completely after the treatment and recurrence did not occur.

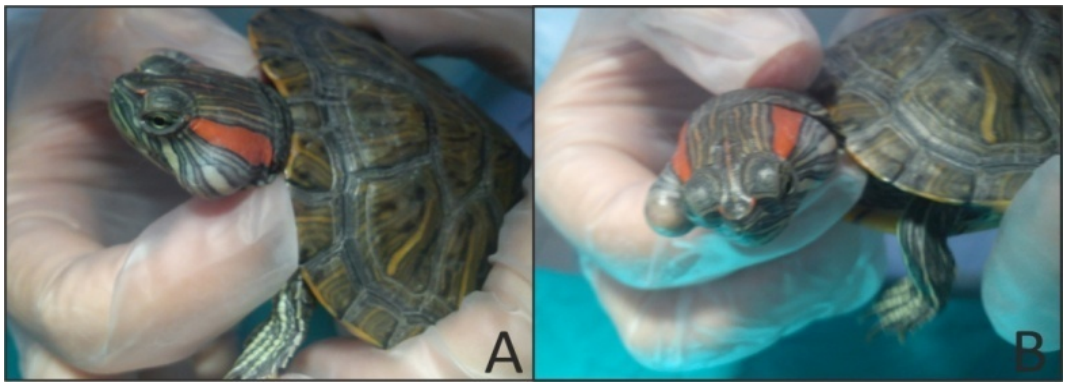

Figure 1 (A-B). A red-eared slider turtle (*Trachemys scripta elegans*) with bilateral aural abscesses.

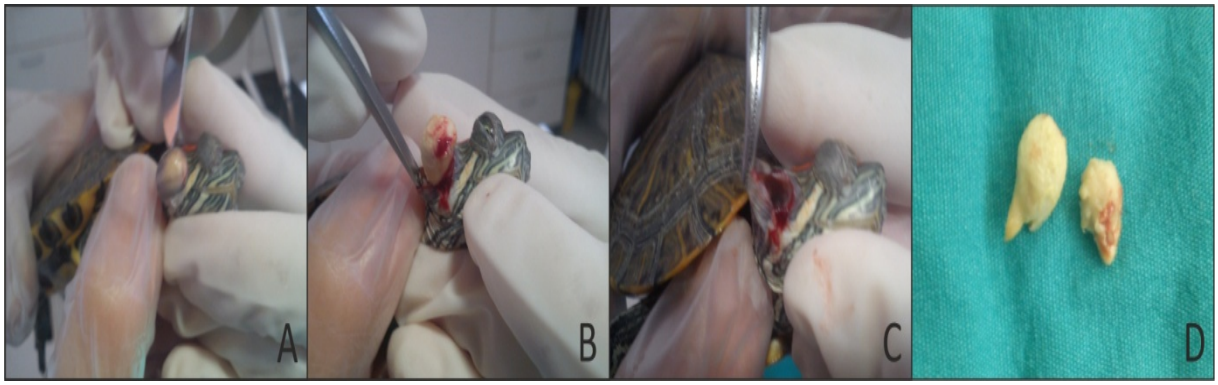

Figure 2 (A, B, C, D). Removal of yellowish firm abscess content subsequent to incision on the thinnest area of the abscess wall

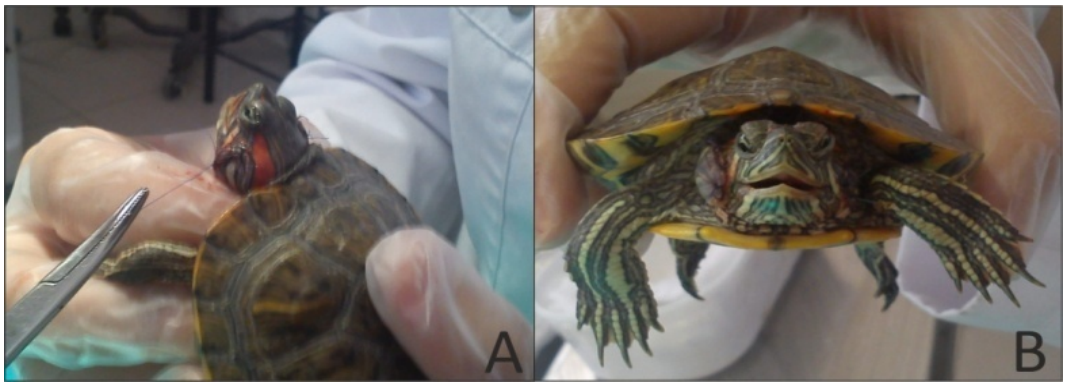

Figure 3 (A-B). Closure of the incision with simple interrupted sutures after irrigation of the region with sterile saline.

Discussion

Morbidity and mortality of the tympanic infection in the turtle species is high (Brown and Sleeman, 2000; McArthur, 2004). Aural abscesses are usually characterized by swelling and enlargement of the region on both sides of the head. Solid, caseous contents are filled out the middle ear and progresses to the eustachian tube. The disease is usually bilateral but the swellings are not equal (McArthur, 2004). Various studies were carried out regarding the etiology of the aural abscess in both eastern box turtles and red-eared slider turtles (Holladay et al., 2001; Brown et al., 2003; Joyner et al., 2006; Kroenlein et al., 2008). Bacterial identification could not be performed because the patient was being kept into the water with antiseptics (methylene blue) for a long time and enrofloxacin was previously used by the veterinarian. Treatment of the disease is surgical removal of firm abscess content because of failure of antibiotics penetration into the abscess pouch.

Suturing of the incision line is not recommended in some source following the removal of content with operative intervention for postoperative flusing (McArthur, 2004). However, successfully recovered cases following suturing of the incision line was reported in a study (Yardımcı et al., 2010; Sarıtaş et al 2012). The complications of ear abscess include osteomyelitis of the jaw and skull bones (McArthur, 2004). A small incision is not sufficient to remove solidified content in our case. We sutured incision line because larger incision was considered to be predisposition to the new ear infections and complications in the postoperative recovery period. As a result, this case recovered without complications after the suturing of the incision line by using postoperative intramuscular gentamicin injection without flushing of abscess pouch. This simple and effective treatment and its results in the red-eared slider turtle *(Trachemys scripta elegans)* which gradually increased in number as a pet in recent years was thought to be suitable for to share.

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