

abdomen, reluctance to eat and move, tachycardia and severe aggression from abdominal palpation. The haematological investigations revealed neutrophilia, leukocytosis and anaemia. Further, cytological examination of peritoneal fluid demonstrated many neutrophils and erythrocytes, while Gram's staining demonstrated mixed infection of cocci and rods. The tiger succumbed after seven days of medication.

A similar case was reported by Singh *et al.* (1994), where the tiger was died due to coli septicemia. However, Timoney (1976) could treat the domestic cat which suffered from peritonitis due to infection. Necropsy examination showed presence of many porcupine quills in various parts of the intestine and viscera. Gross pathological examination demonstrated the presence of excessive peritoneal fluid and adhesion of peritoneum along with necrotic changes leading to its blackish colouration. Examination of gall bladder revealed its engorgement along with seepage of bile. Macroscopic examination of GIT demonstrated puncturing of intestinal loops by squills and later ballooning of intestine (Image 2^w). Haemorrhages in intestine and peritoneum and congestion in various visceral organs along with discrete necrotic foci in spleen, liver and peritoneum were the characteristic findings (Image 3^w).

On the basis of clinical observation and presence of quills, it can be concluded that the tiger had swallowed the porcupine. During the peristaltic movement, the quills had pierced the intestinal loops leading to the seepage of the gastro-intestinal tract contents into the peritoneal cavity. Subsequently, the animal developed traumatic peritonitis. In the places where the quills had punctured the body surface also, it had attracted flies leading to maggot infestation throughout the body. The tiger probably did not respond to treatment due to the aggravated condition.

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VET BRIEF

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THERAPEUTIC APPROACH IN FUNGAL INFECTION IN A JAGUAR *PANTHERA ONCA*

K. Senthilkumar¹, M.G. Jayathangaraj², S. Ramesh³, K. Devaki⁴ and Pathan Nazrullah Khan⁵

^{1,4,5} Arignar Anna Zoological Park, Vandalur, Chennai, Tamil Nadu 600048, India

^{2,3} Department of Wildlife Science, Madras Veterinary College, Chennai, Tamil Nadu 600007, India
 Email: ¹drsenthil72@hotmail.com

Occurrence of dermatophytosis is seldom encountered in captive felids in zoos. An incidence of dermatomycosis in a black Jaguar (*Panthera onca*) is detailed here.

Frequent pawing of cheek regions was reported by an animal keeper of the Arignar Anna Zoological Park in an adult black Jaguar (Samsung) for two days. Closer examination of the felid revealed rubbing of both the cheek regions on the fence of the enclosure along with intermittent pawing and hair loss.

The Jaguar was physically restrained in the squeeze cage and direct skin scrapings and faecal samples were obtained and examined. A detailed examination of the felid further revealed existence of wounds near the cheek region and the animal was treated with an injection of 500mg of ampicillin and cloxacillin I/M in the morning and orally in the evening which was continued daily for seven days, along with local application of povidone iodine solution sprayed from a 20ml syringe externally, from a distance, over the discoloured alopecic patch in the cheek region. Ten grams of griseofulvin was administered orally with

meat, daily for two weeks. The animal's condition dramatically improved over this period and no pruritus or pawing was reported by the animal keeper.

The skin scrapings examined revealed evidence of fungal infections and based on both macroscopic and microscopic appearance of growth in Sabouraud's medium, *Microsporium* sp. infection was identified. Faecal examination failed to reveal any evidence of helminthes.

Encountering of *Microsporium* sp. infection in this Jaguar was in agreement with the findings by August (1977), who further quoted that felids in disease most commonly get affected with *Microsporium canis* infection, however, *Trichophyton* species may also be isolated occasionally. Occurrence of fungal infections in wild animals have also been reported by Fowler (1986) and Beynon and Cooper (1972).

The usage of griseofulvin yielded good results in this animal. This was in agreement with the reports furnished by August (1997) who stated that in case of fungal infections, topical therapy is only an adjuvant and not a sole therapy, thus stressing the need for systemic therapy also. Any topical application might irritate the wild felid and provoke licking and hence, application of topical therapy should not be the sole line of treatment in wild carnivores, as in this case.

Though treatment was carried out in this case vigorously, it is noteworthy to mention the report furnished by Chandler *et al.* (1996) who stated that dermatophytosis may be a self limiting disease and mild cases may not require drug therapy. However, pawing, rubbing and the resultant wounds or skin lesions necessitated effective clinical intervention by means of systemic administration of griseofulvin coupled with topical administration of povidone iodine solution. One should keep in mind that use of griseofulvin is contraindicated in pregnancy and long term administration extending for months together needs more careful assessments as griseofulvin is teratogenic in nature

and may provoke idiosyncratic dose-unrelated drug reactions like depression, vomiting, diarrhoea etc. However, in this case no such reactions were encountered and probably the fatty meal offered intermittently might have reduced vomiting in this animal.

Use of povidone iodine in the treatment of fungal infections, as carried out in this case was recommended by Adams (1995) and Barragry (1994)

The humidity and confinement-related stress may have contributed to the occurrence of fungal infection in this felid, in addition to the possible stray encounter and contact with the fungus affected rats.

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VET BRIEF

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FOREIGN BODY OBSTRUCTION OF PHARYNX IN AN ASIAN ELEPHANT *Elephas maximus*

I. Nath¹, N. Sahoo², D.N. Mohanty³, S.N. Mohapatra⁴, S.K. Panda⁵, V.S.C. Bose⁶ and K.L. Purohit⁷

¹ Associate Professor, ⁶ Professor, Department of Surgery;

² Associate Professor, Department of Medicine; ³ Associate Professor & HOD Gyenacology; ⁵ Assistant Professor, Department of Pathology; Orissa Veterinary College, Bhubaneswar, Orissa 751003, India

⁴ Sub-Divisional Veterinary Officer, Keonjhar; ⁷ Range Officer, Nandankanan Zoo, Bhubaneswar, Orissa, India

plus web supplement of 1 page

Pharyngeal obstruction by large objects and even moderate-sized plastic bags are encountered in elephants (Fowler, 1986). The present paper reports a case of transverse obstruction of the pharynx by a piece of sugarcane in an Asian Elephant *Elephas maximus*.

An adult free-living cow elephant came from a nearby forest, with limited movement, in the early morning hours of 4 January 2005. The local veterinarian and forest official of Keonjhar division observed her from about 10 feet distance. The animal was unable to swallow the food and was salivating. Efforts made by the animal to drink water forcibly with its trunk were futile as the water flowed out of the mouth. It was decided to tranquilize the elephant for a thorough examination and treatment.

On 9 January 2005 she was darted with a mixture of 250mg of xylazine hydrochloride and 50mg of ketamine hydrochloride. After about 12min the animal stood still with the trunk resting on the ground (Image 1^w). Blood samples were collected from the ear vein and 10l of DNS were administered in standing condition by holding the saline bottles high with a long stick (Image 2^w). Examination of the mouth revealed stomatitis. A piece of sugarcane was found to be lodged transversely in the pharyngeal region which was removed by hand. Then the mouth cavity was flushed with normal saline and was painted with boroglycerine. Amoxicillin and cloxacillin - 4g, 5 vials (Intamox - 4g, Intas Pharmaceuticals Ltd.), Novalgine - 30ml, 2 vials (Hoechst India Ltd.), Atropine Sulphate - 0.60mg, 1ml, 10 ampoules and Neurobion - 3ml, 10 ampoules (Merck Lab) were injected parenterally. During the process the animal fell down. Yohimbine hydrochloride 50mg (Antagozil, Troy Lab, Australia) was injected intravenously and the elephant revived immediately from anesthesia. Temperature and respiration rate were 96.5-97 Fahrenheit and 5-6 breaths/minutes respectively which were within the normal ranges. However, forest officials found the animal dead on 11 January 2005. The post-mortem examination revealed pale mucous membranes, atrophy of skeletal muscles and gelatinization of subcutaneous and abdominal fat in some areas. The oral cavity revealed stomatitis with ulceration. The teeth were normal. The gastrointestinal tract was empty with traces of food material. No other gross or histopathological changes could be found in any of the organs. The brain sections were negative for rabies. Hence, the death was attributed to prolonged inanition.

Fowler (1986) stated that elephants die of asphyxiation as a result of entrapment of large foreign objects in the post pharyngeal region causing complete obstruction. In the present case the sugarcane piece was transversely lodged in the pharynx causing restricted swallowing movements. The animal was able to drink some amount of water which kept her living for some days.

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^w See Images 1-2 in the web supplement at www.zooreach.org

