Cutaneous Staphylococcal Granuloma in a Free Living Zebra (Equus burchelli) in Zambia

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ABSTRACT. An outgrowth on the left anteriothoracic region behind the elbow joint was seen in a free living Zebra at the time of postmortem examination. The covering skin was ulcerated, nodular, hard with multiple fistula containing yellowish pus. A pure culture of coagulase positive Staphylococcus aureus was isolated from the deep tissue. Histopathology revealed pyogranulomatous dermatitis characterized by eosinophilic amorphous grains including bacterial colonies. This is the first report of cutaneous staphylococcal granuloma in Zebra in Zambia. — KEY WORDS: cutaneous staphylococcal granuloma, Zambia, Zebra.


Resulting in separation of collagen bundles. Plasma cells infiltrated sparsely among separated collagen bundles and clustered around the small vessels in some portions. Hucker’s stain demonstrated Gram positive cocci resembling Staphylococci in the centre of granuloma (Fig. 2). PAS and Ziehl-Neelsen’s stains failed to demonstrate any fungus or acid fast-bacteria in the lesion. A pure culture of coagulase positive Staphylococcus aureus was isolated. Any organisms did not grow on Sabouraud’s agar.

Staphylococcus aureus, Escherichia coli, Pseudomonas aeruginosa, Actinobacillus lignieresi, A. equuli, Bacteroides, Streptococcus and Proteus have been implicated as a cause of cutaneous pyogranuloma [2, 4, 5]. However, the most common cause of equine botryomycosis has been reported to be Staphylococcus aureus [4]. Most cases of cutaneous pyogranuloma were initiated by local trauma associated with or without foreign body [3, 4]. Trauma may be an important prerequisite for inoculation of the organisms [4]. In the present case we believe that an injury to the skin caused by foreign body contaminated with Staphylococci might have resulted in typical lesions. The lesions seen in the present case were similar to those reported in cattle and horses [1, 3].
This study suggests that the Zebra can suffer from cutaneous staphylococcal granuloma and this can cause damage to the skin, a most valuable bye-product of game ranching from Zebra. It is suggested that even minor injury should be treated with antibacterial substances to prevent this condition. This is the first report of cutaneous staphylococcal granuloma in wildlife particularly in Zebra in Zambia.

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