

# Isolation of *Corynebacterium bovis* from Hog Deer- A case report

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The genus *Corynebacterium* consists of gram positive rod shaped bacteria which causes multiple diseases in various domestic animal species such as acute mastitis in cattle (Inui *et al.*, 1979; Lissemore *et al.*, 1991), *Corynebacteriosis* in Ogaden camels (Wosene, 1991), liver abscesses in sheep (Zienab *et al.*, 1991), Otitis in dogs (Langoni *et al.*, 1991), caseous lymphadenitis in goats (Bahaman, 1989), abortion in mare (Krishnappa, 1979, Ramachandra, 1981) and visceral caseous lymphadenitis in ewe (Renshaw, 1979). It has also been isolated from different animals without causing disease in them.

## Case History

A hog deer from Ludhiana zoo was presented in the Veterinary clinics of GADVASU in the month of January, 2008 with a history of non healing chronic wound in the leg. The deer was injured in an accident with the iron fence resulting into wound. The pus sample was collected aseptically and was immediately transported to the laboratory for the microbiological examination. The sample initially was inoculated on to Blood agar (B.A.) and Nutrient agar (N.A.). The growth of bacteria was evident after 48hrs of incubation at 37°C on blood agar without exhibiting haemolysis. The colonies were tiny, dew drop like and upon staining with Gram's stain were short, stout, Gram positive bacilli. The bacterium when subjected to biochemical examination (glucose, sucrose, maltose, urea, haemolytic test) was identified as *Corynebacterium bovis*. Antibiotic sensitivity test revealed that the bacteria were sensitive to doxycycline, erythromycin, ofloxacin, oxytetracycline, streptomycin, and norfloxacin and resistant to ampicillin, amoxycillin, cephotaxime and ceftriaxone.

## Discussion

*Corynebacterium* spp is found associated with many disease conditions in different animal species. *Corynebacterium pyogenes* has been isolated from Columbian black tailed deer (Fowler, 1980) and from a case of infectious epiphysitis and valvular endocarditis in a red deer (*Cervus elaphus*) (Badger, 1982).

It is also known that *Corynebacterium* causes a variety of disease conditions but effective therapy is the key to success since, the tough wall of *Corynebacterium* remains an important barrier in effective antibiotic therapy. In this case also the above findings could be correlated because the nature of wound was of non healing type. Also in the present study resistance against ampicillin, amoxycillin, cephotaxime and ceftriaxone antibiotics indicates that resistance against newly evolved antibiotics has started developing in wild animals. Thus the use of antibiotics in wild animals should be done more cautiously and meticulously.

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