

A Case of Anthrax in Wild Elephant from Western Ghats Region of Tamil Nadu, India

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ABSTRACT

All mammalian species including human being is virtually affected by highly contagious zoonotic disease called Anthrax. Anthrax is caused by *Bacillus anthracis*, a Gram-positive, non-motile sporulating rod bacterium. Although this disease is well documented in wild herbivores of India, it is rarely seen among elephants in Tamil Nadu.

On 14th September, 2011, the death of a wild elephant was reported by the forest range officer to the Forest veterinary officer, Coimbatore. A detailed examination of the carcass revealed the absence of rigor mortis, dark tarry blood exuded from the natural orifices (does not clot), rapid putrefaction, and subcutaneous swellings were noted.

Based on the features the disease was suspected to be anthrax. With suspected diagnosis, the blood smears were prepared from a dead elephant. The smears were fixed and stained Leishman stains. Blood smear stained with Leishman's stain revealed numerous blue rods with typical truncated ends in short chains. Polychrome methylene blue staining was done for the demonstration of capsule. It revealed blue colored bacilli with pink colored capsular material, the 'Mac Fadyean' reaction.

On nutrient agar, irregularly round colonies of about 4 mm in diameter, flat, dull, opaque, greyish-white and a frosted glass appearance were noticed. The typical 'medusa head appearance' is noticed under low magnification. On blood agar, the colonies were weakly hemolytic. 'Bamboo stick' appearance was appreciated when Gram's stained culture smear was examined.

As anthrax was confirmed, the post-mortem was not conducted. Although deep burial of carcass is permitted, the carcass was incinerated in the forest area to prevent further spread of disease due to scavenging of other wild animals.

Consequent upon the incidence, ring vaccination programme for cattle, sheep and goat with anthrax spore vaccine was launched, completing the process in the villages bordering the affected forest area.

Keywords: *Anthrax, Asian elephant, Mac Fadyean, Bacillus anthracis*

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