ISOLATION OF NOCARDIA ASTEROIDES FROM A PIG

by

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ABSTRACT

Culture of lung tissue of a pig resulted in the isolation of *Nocardia asteroides* and *Pasteurella multocida*. Confirmatory tests for *Nocardia* were performed.

Nocardiosis has been recognized as a disease of a variety of domestic animals. However, only one isolation from the pig has been reported. The purpose of this paper is to report the culture of *Nocardia* from a pneumonic swine lung.

CASE REPORT

A cross-bred porcine was submitted live on February 16, 1971. The animal had an unthrifty appearance which could not be related to the ration. On necropsy a chronic pneumonia was found in the ventral portion of the lungs. The pneumonic areas were firm and pale. A few lungworms (*Metastrongylus sp.*.) were found.

CULTURE

A cube of tissue was carefully removed from the lung so as to avoid contamination. The cube was cultured on blood agar and eosin methylene blue agar plates. After 24 hours incubation at 37°C, *Pasteurella multocida* was found on the blood agar. A large number of tiny, dull opaque colonies were found on the eosin methylene blue plate. Gram stain of these dull colonies revealed a delicate filamentous form. By performing a Kinyoun stain, the filaments were found to be partially acid fast. Further tests, established that the isolate was a strain of *Nocardia asteroides*. The organism formed typical salmon-colored colonies on Sabouraud’s dextrose agar, grew poorly in gelatin without liquefaction, and failed to hydrolyze casein.
Growth was better at room temperature than at 37°. A slide culture revealed that the isolate was a conidia-producing strain.

Histopathology of the lung did not indicate tissue involvement. Brown and Brenn, Gridley’s and acid-fast stains failed to reveal organisms resembling *Nocardia* sp. The organism was not cultured from spleen, liver and kidney.

Three guinea pigs were injected intraperitoneally with 1.0 ml. of a spore suspension mixed with gastric mucin. Death did not occur after three weeks.

**Discussion**

The recognized host range of *Nocardia asteroides* in domestic animals includes the dog, cat, cow and horse. This range should be expanded to include the pig.

**References**