

Pasteurella Pseudo Tuberculosis Infection

THE rod-shaped bacterium which causes pseudo-tuberculosis in mink is rarely isolated. Since it produces changes in the body that are similar to tuberculosis, it is called "pseudo," meaning false, tuberculosis. This organism was first encountered in a guinea pig which had been inoculated with the discharge from a tuberculosis-like lesion on the arm of a child. Chickens, nutria, pigs, horses, cats, sheep, rats, mice and even man become infected with pseudo-tuberculosis. Guinea pig, chinchilla and rabbit raisers have experienced severe outbreaks in their stock (Figure 1). While infections are rare, the disease may cause a high mortality.

Transmission

Natural infection may occur following the ingestion of the bacteria by eating infected carcasses or in contaminated food or water. Dr. Betty Knox-Seith described a most interesting outbreak which occurred in Denmark¹. During the hunting season, mink ranchers occasionally feed the viscera of wild rabbits to their mink. Pseudo-tuberculosis is one of the most common infections in these rabbits. Two ranchers fed their mink infected rabbit viscera. A few days later, the first cases appeared. After a rapid course, 60-70 mink died of pseudo-tuberculosis.

During the spring of 1961 we observed a self-limiting outbreak in western Washington in which only one or two animals were involved. The original bacterial isolation was made by Dr. Frank Crews, Laboratory Supervisor of the State of Washington Department of Agriculture. This ranch was overrun by an invasion of mice. The mice would climb the supporting pen posts and run along the tops of the pen contaminating the feed. Not infrequently an alert mink would pull a mouse through the wire and eat it. While there is no direct evidence, I would hazard the guess that some of these mice were in-

fectd with pseudo-tuberculosis and were the source of the infection.

Diagnosis

Pseudo-tuberculosis cannot be diagnosed by merely observing a sick mink -- an autopsy followed by bacteriologic examination of the infected tissue is necessary. Dr. Betty Knox-Seith noted many small yellowish nodules of varying size in the spleen, liver, intestinal lymph nodes and in the wall of the intestine. Purulent pleuritis was encountered in our case.

Control

Since herd treatment does not appear to be practical, one approach is to eliminate the source of infection. Our recommendation to the western Washington rancher was to rid his ranch of wild mice. After the liberal use of poison and mouse guards (Figure 2) for the supporting pen posts, the mouse population was virtually eliminated. No further cases have been reported from this ranch.

References

1. Knox-Seith, B. Personal communication, 1954.
2. Knox-Seith, B. and Helgebostad, A. Pseudotuberkulos p. 192 in Minkupfodning, Nordisk Handbok for Minkupfodore, 1961.

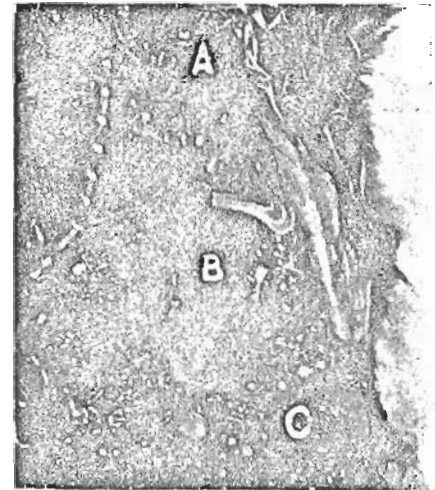


Figure 1—Experimental pseudo-tuberculosis in a chinchilla. A. Opened rib cage. B. Liver showing many small yellowish-white spots. C. Intestine.

Members of the United Mink Producers Association met in a closed meeting for members only at the Shroeder Hotel in Milwaukee, Wis., July 6.

Main purpose of the meeting was to determine whether UMPA members should offer mutation mink in authorized UMPA sales. The majority voted against this proposal in a written ballot.

As a result, rather than market their mutations under the UMPA label, UMPA members will continue to market their mutations through the Mutation Mink Breeders Association (EMBA).

The members also rejected a motion proposing that committees from EMBA, UMPA, GLMA and the National Board should meet to discuss the possibility of uniting under a single organization.

President Don Gothier reported that John Adkins, president of the Great Lakes Mink Association, had invited UMPA directors to meet jointly with GLMA directors in August. UMPA members then voted that the invitation be accepted.

Look for another authoritative helpful article on Mink Diseases by Dr. Gorham in next month's issue.

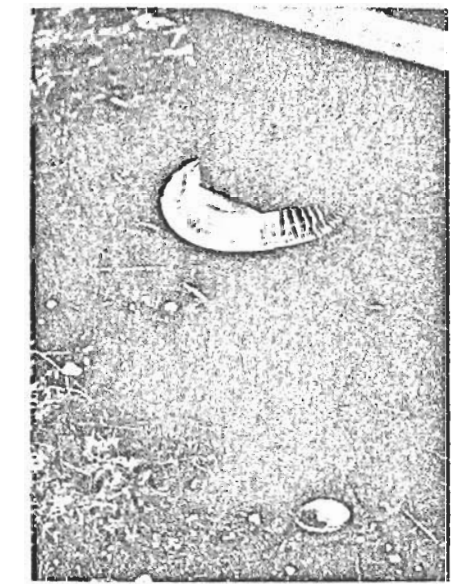


Figure 2—Mouse guards, fashioned out of aluminum foil pie tins, were placed around the pen posts to prevent mice from crawling on the mink cages. Poison was placed at the base of the posts.

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