

## ACTINOBACILLOSIS

The possibility of this disease existing in Canada was first mentioned by the Veterinary Director General of the Department of Agriculture, Dr. J. G. Rutherford, in his annual report for 1902.<sup>1</sup> The confirmation of this suspicion was made by the writer in an official report dated June 23, 1903, and since that time three other identified cases have been studied and have also furnished the data upon which this Bulletin is based.

The non-identification of this disease in the past has been due to the fact that little or no original work has been conducted in Canada, on the infectious diseases of animals, and when such work has been accomplished the greatest difficulties have been encountered.

This disease, as the name implies, bears a similarity to the disease known as 'Actinomycesis' or 'Lumpy Jaw'; and in fact a study of its anatomical manifestations and pathological lesions would lead the uninitiated to believe they were dealing with that classic affection. Until 1900-01, the two diseases were considered identical, in fact no effort had been made to differentiate between them until it was shown by Lignières and Spitz<sup>2</sup> that two distinct diseases were being treated under the one name, 'Actinomycesis.' Their work was exhaustive and indicated that beside the streptothrix causing the classic Actinomycesis, a bacillus, having none of the characteristics of a dichotomous streptothrix was responsible for lesions exhibiting the same general character as are found in Actinomycesis, with the exception of their micro-chemical reactions, and, from its bacillary causative agent named it 'Actinobacillosis' (which means a ray-forming bacillus).

Nocard,<sup>3</sup> in 1902, identified this affection in France, showing also that its distribution was general in that country.

The disease studied by us is identical with that studied by Lignières and Spitz in the Argentine Republic, and M. Nocard in France, with the exception that the bacillus isolated from our cases has not in any instance shown the degree of virulence credited to that isolated by the investigators mentioned, hence we may safely assume that in the cases studied, we have been dealing with an attenuated form of the disease.

The history and extent of this affection in Canada has not been fully ascertained, but it is more than probable that a number of the cases known under the name of Actinomycesis, would, if investigated, be found to be due to the peculiar bacillus which we are about to describe.

It is not our purpose at this time to discuss the subject of Actinomycesis, as this disease has received consideration by various writers and we are not prepared to add any new scientific data to that already published on this affection. It is, however, our intention to present in a clear and concise manner the results of our investigations upon this newly described disease, 'Actinobacillosis,' that Canadian veterinarians and stock owners may know the essential characteristics of this disease which has been identified in Canada.

The history of the four cases identified by us is very brief and will be given in as full a manner as the data accompanying the material forwarded allows.

*Case I.*—An aged grade cow. Suffered considerably in fall of 1901 and spring of 1902. After being allowed to run to pasture for a time and delivered of her calf she seemed to make a good recovery. This year (1903) the symptoms returned in a more aggravated form and the animal was destroyed. The affected portion, consisting

<sup>1</sup> Annual report of the Minister of Agriculture, 1902, p. 82.

<sup>2</sup> J. Lignières and G. Spitz, de L'Institut National Bactériologie Buenos Aires, Actinobacillose, Recueil de Médecin Vétérinaire, 1903.

<sup>3</sup> Nocard, Actinobacillose der zunge, Jhar. der Vet. Med. Berlin, LV1., Bd., p. 695, 1903 (Abstract).