



HOKKAIDO UNIVERSITY

Title	STUDIES ON CULTURAL AND SEROLOGICAL PROPERTIES AND VIRULENCE OF LEPTOSPIRA
Author(s)	KIDA, Hiroshi
Citation	Japanese Journal of Veterinary Research, 17(3), 82-82
Issue Date	1969-09
Doc URL	https://hdl.handle.net/2115/1926
Type	departmental bulletin paper
File Information	KJ00002369763.pdf



the cytoplasm.

Furthermore, lamella-like structures and dense spheroid structures, which were specific for ICHV infected cells, were observed.

STUDIES ON CULTURAL AND SEROLOGICAL PROPERTIES AND VIRULENCE OF LEPTOSPIRA

Hiroshi KIDA

*Department of Hygiene and Microbiology
Faculty of Veterinary Medicine
Hokkaido University, Sapporo, Japan*

It has been more than 50 years since *Leptospira* appeared in microbiology, nevertheless there are many unknown problems.

The author was interested in the investigations on 1) cultivation of *Leptospira* in a chemically defined medium, 2) effect of the cultivation on leptospiral virulence, and 3) antigen analysis of *Leptospira* by precipitin reaction in gels. The results obtained were summarized as follows:

Some strains of *Leptospira* did not grow in SHENBERG's chemically defined medium. However, cultivation of these strains in the boiled serum medium easily produced the mutants, which could grow in SHENBERG's chemically defined medium. The virulence of the mutants was slightly decreased after 21 serial cultivations in the defined medium. The antigenicity of the mutants was unchanged after the same serial cultivations.

By applying precipitin reaction in gels it was found that sodium deoxycholate extract of leptospiral cells contained both genus and type specific antigens. Genus specific antigens were heat stable while type specific antigens were heat labile. It was considered that precipitin reaction in gels should be used for the classification of *Leptospira* in parallel with the agglutination test.