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COMPARISON OF ANTIGENS AND PROTEIN PROFILES OF VIRULENT AND AVIRULENT CLONES OF *LEPTOSPIRA INTERROGANS* SEROVAR *COPENHAGENI* STRAIN SHIBAURA

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The antigens and protein profiles of virulent and avirulent clones of *Leptospira interrogans* serovar *copenhageni* strain Shibaura were compared by SDS-polyacrylamide gel electrophoresis (SDS-PAGE), Western blotting and radioimmunoprecipitation.

A virulent clone specific antigen was detected by Western blotting. The molecular weight of the antigen was estimated to be approximately 32000 daltons by SDS-PAGE, and the antigen was found to be thermostable.

A 43000 dalton antigenic molecule and a 41000 dalton antigenic molecule that were specific, respectively, for the virulent clone and the avirulent clone were detected by Western blotting. However, these antigenic molecules contained common antigenic determinants between the virulent and avirulent clones.

No difference between the virulent and avirulent clones was observed in the comparison of protein profiles on SDS-PAGE and of the surface-exposed protein antigens detected by radioimmunoprecipitation.

Production of virulent clone specific monoclonal antibodies was attempted. Although 12 hybridoma cell lines secreting monoclonal antibodies were produced, none of them was specific for the virulent clone of leptospira. However, one of these monoclonal antibodies showed over 10 times higher agglutination titer for the virulent clone than for the avirulent clone of leptospira.