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## ANTIGENIC SPECIFICITY OF LEPTOSPIRAS OF *HEBDOMADIS* SEROGROUP IN MICROSCOPIC AGGLUTINATION TESTS USING MONOCLONAL ANTIBODIES

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Monoclonal antibodies to leptospiras of 4 serovars belonging to *Hebdomadis* serogroup were prepared. Antigenicity of leptospiras of *Hebdomadis* serogroup was examined by comparing the reactivity patterns with the monoclonal antibodies using microscopic agglutination tests.

A total of 17 monoclonal antibodies to *hebdomadis* was classified into 8 distinct groups based on their reactivity patterns. Of these, a group of monoclonal antibodies reacted only with *hebdomadis*, and another group of monoclonal antibodies reacted with all the serovars of *Hebdomadis* serogroup. A total of 19 monoclonal antibodies to *kremastos* was classified into 12 distinct groups. *Hebdomadis*, *borincana*, *kabura*, and *kremastos* were suggested to be antigenically closely related on the basis of the reactivity patterns with the monoclonal antibodies to *hebdomadis* and *kremastos*. A total of 10 monoclonal antibodies to *worsfoldi* was classified into 6 distinct groups. One monoclonal antibody reacted only with *worsfoldi*, and a group of monoclonal antibodies reacted with all the serovars of *Hebdomadis* serogroup. *Worsfoldi* and *jules* were found to be antigenically closely related. A total of 11 monoclonal antibodies to *kambale* was classified into 3 distinct groups. Of these, a group of monoclonal antibodies reacted with all the serovars of *Hebdomadis* serogroup. None of the monoclonal antibodies used in the present study reacted with 7 serovars of different serogroups.

The present findings suggest that monoclonal antibodies including serovar- and serogroup-specific monoclonal antibodies are useful for the classification of leptospiras as well as for antigenic analysis of the organisms.