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**ISOLATION OF THE ANTIGEN-ACTIVE COMPONENTS  
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The serovar-specific main (TM) antigen from *Leptospira interrogans* serovar *canicola*, which possesses lipopolysaccharide properties, was hydrolyzed with 2 N formic acid. The hydrolysate contained a disaccharide of galactosyl-arabinose but revealed no antigenic activity in the radioimmunoassay system. The same TM antigen was treated with 0.1 N sodium hydroxide and degraded into two high and low molecular antigenic components. The component with a lower molecular weight (3,400 daltons) mainly consisted of carbohydrates, and it lost almost all of its fatty acid and protein components. The substance lost immunoprecipitable activity and immunogenicity in a rabbit but had serovar-specific inhibitory potency in the radioimmunoassay system as well as in a microscopic leptospiral immunoagglutination system. The antigenic activity of the compound was reduced by periodate oxidation but not affected by digestion with proteolytic enzymes. A similar compound was also obtained from the organisms by alkaline extraction and gel chromatography.

TM antigen from *kremastos* Kyoto, which belongs to a different serogroup, was also treated with mild alkali. Although a low molecular weight compound with the same chemical and physicochemical properties as that from the TM antigen of *canicola* was produced, there was no antigenic activity.

These findings indicated that the serovar-specific antigenic determinant of leptospira may be a carbohydrate.