

ANTI-COMPLEMENT ACTIVITY IN *Boophilus microplus* SALIVA

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The tick *Boophilus microplus* is an ectoparasite of cattle that promotes extensive loss in livestock besides transmitting babesiosis and anaplasmosis. Cattle exposed to ticks, develops an immune response, acquiring a degree of resistance. Complement activation is one of the mechanisms involved in the host response. We have observed that *B. microplus* saliva inhibits guinea-pig complement of lysing sheep erythrocytes (SE) sensitized with anti-SE. Fifty percent inhibition is obtained with approximately 0.4 µg of saliva protein. This may be one of the mechanisms used by the tick to evade its host immune response. Characterization of the molecule(s) with anti-complement activity is under way.

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SEROLOGICAL ASPECTS OF *Tritrichomonas suis* AND *Tritrichomonas foetus*.

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The *Tritrichomonas foetus*, causative agent of cattle genital trichomoniasis and the nasal form of *Tritrichomonas suis* involved in the etiology of atrophic rhinitis of swine showed many questions regarding with their immunological aspects.

The antigenic relationship between *T. suis* and *T. foetus* was studied through indirect immunofluorescence, gel immunodiffusion and immunoelectrophoresis. Immune serum against these two species was produced in rabbits in response to inoculation of somatic antigens of the protozoans. Using fluorescent serum anti rabbit globulin, fluorescent variation in the staining reaction of two organisms were evident with all combinations of antigen and immune rabbit serum (IRS). After contact with the specific IRS and the *T. suis* (TS) and *T. foetus* (TF) cellular antigens, a strong bright green fluorescence was observed on the whole organism surface. In reactions with TS and TF and heterologous IRS the fluorescence had variation in intensity from weak to strong fluorescence over whole body of the organism. In the reactions between these IRS and antigens of each one of these species the largest number of precipitating lines was observed between homologous system using gel immunodiffusion. Using the Outcherlony technique the antigens TS and TF showed 1,2,3 or 4 lines in the A antigenic group and 1 and 2 precipitating lines in group B. The antigens TS and TF were separated by gel immunoelectrophoresis and reacted with the IRS of each species of *Tritrichomonas*. The largest number and strong precipitating lines were obtained from reactions between antigens and their homologous immune sera. The immunoelectrophoretic study produced additional information about the number of antigenic components showing the presence of at least three specific antigenic groups of *T. suis* and *T. foetus*. The results obtained showed that protozoans have antigenic characteristics peculiar to each species but they also present similar or closely related antigens probably of generic identity or that reflect a common phylogentic origin.

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