IMMUNOLOGICAL INFLUENCES ON SUCKLING-PIGLET DIARRHEA UPON ADMINISTRATION OF SWINE PERIPHERAL BLOOD EXTRACT: TRANSFER FACTOR

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A dialyzable transfer factor (TF) extracted from a large pool of leukocytes obtained from adult swine was administered to neonatal piglets and a comparison was made between the TF injected piglets and a non-treated (control) group to determine the incidence of pig scour and several immunoresponses. There was a markedly low incidence of diarrhea in the TF injected piglets while the occurrence was very high in the control piglets. The indirect hemagglutination antibody titers to the *Escherichia coli*, which was predominantly isolated from the small intestine of the TF injected group, were significantly higher than those of the control group. Immunofluorescent studies clearly demonstrated the presence of a larger number of IgA-bearing cells in the lamina propria of the small intestinal mucosa in the TF treated group as compared to that of the control group. Counts of viable *E. coli* in the small intestine of 4 week-old piglets treated with TF were lower than those in the control group.

These observations indicated that TF may play an important role in enhancing local immunoresponse activity in the small intestines of neonates, and therefore, may offer some possibilities for applying TF against several local infections in suckling animals. However, further studies are needed to elucidate how TF modulates immune system in the neonatal stage and how it stimulates immunopotency.