

even the highest dose (10^{11}) was not able to make them clinically sick. In the future young naïve rhesus monkeys can be used for infectivity study and pre-clinical evaluation of *Campylobacter* vaccine formulations.

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FUNCTIONAL PIGLET MODEL FOR THE CLINICAL SYNDROME AND POSTMORTEM FINDINGS INDUCED BY STAPHYLOCOCCAL ENTEROTOXIN B

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Staphylococcal enterotoxin (SE) B causes serious gastrointestinal illness, and intoxication with this exotoxin can lead to lethal toxic shock syndrome. In order to overcome significant shortcomings of current rodent and nonhuman primate models, we developed a piglet model of lethal SEB intoxication. Fourteen-day-old Yorkshire piglets were given intravenous SEB, observed clinically, and sacrificed at 4, 6, 24, 48, 72, or 96 hrs posttreatment. Clinical signs were biphasic with pyrexia, vomiting, and diarrhea within 4 hrs, followed by terminal hypotension and shock by 96 hrs. Mild lymphoid lesions were identified as early as 24 hrs, with severe lymphadenopathy, splenomegaly, and prominent Peyer's patches found by 72 hrs. Widespread edema-most prominent in the mesentery, between loops of spiral colon, and in retroperitoneal connective tissue-was found in animals at 72 hrs. Additional histologic changes included perivascular aggregates of large lymphocytes variably present in the lung and brain, circulating lymphoblasts, and lymphocytic portal hepatitis. Preliminary molecular investigation using gene array has uncovered several gene profile changes that may have implications in the pathophysiology leading to irreversible shock. Five genes were selected for further study, and all showed increased mRNA levels subsequent to SEB exposure. The use of this piglet model will continue to elucidate the pathogenesis of SEB intoxication and facilitate the testing of new therapeutic regimens that may better correlate with human lesions.

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IDENTIFICATION AND CHARACTERIZATION OF ENTERIC PATHOGENS ISOLATED FROM CASES OF ACUTE DIARRHEA, ASYMPTOMATIC CONTROLS AND RETAIL FOOD IN A THAI VILLAGE

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Background: The description of enteric pathogens isolated from environmental sources and from humans is an alternative approach to determine the transmission of diarrheal disease. This study microbiologically identifies and characterizes enteric pathogens isolated from children with and without diarrhea and uncooked food in a village in Thailand.