IMMUNE RESPONSE IN DIARRHEAL PATIENTS AND ASYMPTOMATIC CARRIER WITH CS6-PRODUCING ENTEROTOXIGENIC ESCHERICHIA COLI INFECTION

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Abstract. Enterotoxigenic Escherichia coli (ETEC) is one of the major causes of diarrhea in children and travelers in developing countries. ETEC colonization factors (CFs) are virulence determinants considered as protective antigens and major targets for vaccine development against ETEC infections. One of the most prevalent CFs, coli surface antigen 6 (CS6), a non-fimbrial polymeric protein consisting of two major subunits, CssA and CssB, is produced by approximately 25-35% of ETEC worldwide. We could isolate only CS6-producing ETEC strains from two diarrheal patients and one asymptomatic carrier, but we could not detect CssA- orCssB-specific antibodies in the feces and blood of two patients convalescing from natural ETEC infection and of an asymptomatic carrier using western blotting. Therefore, in order to protect against infection with CS6-producing ETEC, protective levels of CS6 immunity should be incorporated in any future vaccines against ETEC.

Keywords: ETEC, colonization factor, CS6, immune response