ABSTRACT

During January to May 1981, twelves isolates of Campylobacter jejuni were successfully isolated from stools of 126 diarrhoea patients. The serologic response employing a bactericidal assay for Campylobacter jejuni was studied.

Unabsorbed patients' sera were studied. All of sera samples from 10 pediatric patients with campylobacter enteritis had antibodies to the homologous bacteria. The antibody titers of acute sera ranged from 1 : 2 to 1 : 16. Eight of the 10 patients' sera developed a rise in antibody titer of eightfold and greater. The titers of paired sera of one case was static, while another case decreased from 1 : 2 to zero.

Weekly sera for 5 to 9 weeks from 6 patients were studied for homologous antibodies. Five cases had rise in titer; peaks of the titers were detected at week one in 4 cases, at week two in one case. After the titers reached the peaks, they sharply fell in week two and week three and then gradually fell to zero during week four to week six. There was no rising titer in one case, started with 1 : 2 and fell to zero at week one and thereafter.

Convalescent sera from 5 patients had antibodies to half of the 10 heterologous isolates of C. jejuni tested at low titer of 1 : 2 to 1 : 4.

Neither the sera from the rabbits nor the 10 patients had antibody to E. coli (both of heat stable and heat labile serotypes), Sh. dysentery, Sh. flexneri, Sh. sonnei, Salmonella group B, S. typhi, V. parahaemolyticus, V. cholera, NAG and Y. enterocolitica.

Six of 80 (7.5 %) sera from 80 patients with other acute bacterial enteritis (except C. jejuni, V. cholera, and Y. enterocolitica) had antibodies titers 1 : 2 to 3 (out of 5) isolates of C. jejuni.

Only one of 70 (1.4 %) controls' sera killed the rabbit-immunized strain of C. jejuni at titer 1 : 2.

It is concluded that the bactericidal assay for C. jejuni is highly specific to the homologous strain and the patients' sera had antibodies to some heterologous strains, it is most likely to have serotypic specificity. The patients' sera had no reaction with other common enteric organisms. The test is useful in diagnosis during periods of campylobacter

enteritis outbreaks, since at least some C.jejuni isolates must be identified. This method of test is only partially helpful in diagnosis of sporadic cases.