

Patterns of adherence of diarrheagenic escherichia coli to HEp-2 cells

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A total of 516 *Escherichia coli* strains randomly isolated from coprocultures of 154 Chilean children with diarrhea and 66 controls were examined with DNA probes and tested for adherence to HEp-2 cells. Three adherence patterns were distinguished, localized, true diffuse and "aggregative." Enteropathogenic *E. coli* (EPEC) were detected by EPEC adherence factor probe among 86 of the 372 isolates (23%) from patients with diarrhea vs. 14 of 144 (10%) strains from controls ($P < 0.0002$). Of 95 strains that manifested localized adherence, 97% were EPEC adherence factor probe-positive; thus the HEp-2 assay may serve as an alternative to the probe in identifying EPEC adherence factor-positive EPEC. True diffuse adherence was not associated with diarrhea. In contrast the aggregative pattern appears to signify a new, distinct class of diarrheagenic *E. coli* (enteroadherent-aggregative *E. coli*). The aggregative pattern was found in only 3 of 27 enterotoxigenic, 0 of 4 enteroinvasive, 0 of 2 enterohemorrhagic