Adherence of Helicobacter pylori to HEp-2 cells

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The adherence of 25 strains of Helicobacter pylori was evaluated in HEp-2 cells. These bacterial isolates, obtained from Chilean patients with gastric disorders, were also tested for haemagglutination of human red blood cells. Adherence of HEp-2 cells was expressed as a common property of all strains, irrespective of whether the cultures were grown on semi-solid or in liquid media. Previous reports that haemagglutinating activity was present in cells grown only on semi-solid media were confirmed. Adherence to HEp-2 cells was suppressed when bacterial cells were pretreated with homologous or heterologous whole human serum, containing specific antibodies of H. pylori. Adherence remained unaltered when bacterial cells were similarly treated with normal serum lacking specific antibodies. These observations imply that adhesions are expressed in vivo and suggest that an adherence mechanism, not depending on the expression of specific haemagglutinin antigen, operates for H. pylori.