Helicobacter pylori in human oral cavity and stomach.


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The oral cavity has been suspected as an extra-gastro-duodenal reservoir for Helicobacter pylori infection and transmission, but conflicting evidence exists regarding the occurrence of H. pylori in the mouth, independently of stomach colonization. Ninety-four gastric biopsy patients were analysed for the concurrent presence of H. pylori in the mouth and stomach. Samples were collected from different areas within the mouth and H. pylori DNA was amplified by the polymerase chain reaction (PCR) and verified by sequencing. Helicobacter pylori-specific serology was performed, and stomach colonization was determined by culture. In addition, relevant dental and periodontal parameters, as well as general health parameters, were recorded. Helicobacter pylori was found in the stomach of 29 patients and in the oral cavity of 16 patients. In only six patients was the bacterium detected simultaneously in the stomach and mouth. Notably, the 10 patients in whom the bacterium was found solely in the mouth did not have serum antibodies to H. pylori. The occurrence of H. pylori in the mouth was found to be correlated neither to any general or oral health parameters, nor to any particular site of collection. This study shows that H. pylori can occur in the oral cavity independently of stomach colonization.

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