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Helicobacter Pylori infection in Children: Introduction and Diagnosis

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ABSTRACT

Introduction:
Helicobacter pylori (HP) is a gram-negative, helical, microaerophilic bacterium responsible for one of the most prevalent chronic bacterial infections in pediatric population. Currently, up to 80% of children in developing countries are infected. Even though most of patients remain asymptomatic during the life, this infection is usually lifelong, unless specifically treated. In 1983, Warren and Marshal discovered the organism. Since then studies have shown that gastrointestinal infection with HP is the leading cause of peptic ulcer disease. This organism contributes in the pathogenesis of chronic gastritis, mucosa-associated lymphoid tissue (MALT) lymphoma and gastric adenocarcinoma. There are invasive and noninvasive tests for the diagnosis of HP infection in children. The gold standard for diagnosis is either pathologic assessment together with rapid urease test (RUT) or tissue culture on samples obtained by endoscopy. Non-invasive tests include urea breath test (UBT), antibody detection, or HP stool antigen test. When treatment is indicated, successful eradication of HP should be assessed by UBT or HP stool antigen test. The old terms describing the colonization of gastric antrum by HP into acute, chronic, and chronic-active are nowadays replaced with mild, moderate, or marked by Sydney classification system. Classification is a semi-quantitative method based on topography and the presence of histologic parameters such as inflammation, activity, atrophy, intestinal metaplasia, and H. pylori infection.