Epidemiology of Helicobacter in Chinese families: a foundation for cost-effective eradication strategies?

Your recent ‘Chinese Consensus Report on Family-based Helicobacter pylori infection Control and management’ will encourage more doctors in China to consider Helicobacter pylori as a curable aetiology for gastrointestinal symptoms, and as a smart way to prevent gastric cancer in the ageing population.

The paper is based on results of a very large new study of Helicobacter pylori prevalence in China whereby investigators completed a China-wide breath-test survey of 10735 families. Unfortunately, 70% of families had at least one positive family member although younger, educated and Eastern-China families had less, with 28% of persons being infected but only 20% of children being infected. In contrast, some North-Western provinces had 85% of families infected and 19% had all family members infected. The parents seemed to be the main source, mother and father equally.

While the exact mechanism whereby H. pylori causes gastric cancer is unknown, it is certain that gastric cancer follows the long-standing chronic gastritis induced by H. pylori. This process leads to the Correa cascade of atrophic gastritis, intestinal metaplasia and dysplasia. Nested case–control studies have shown that H. pylori infection is the main risk factor for gastric cancer, both intestinal and diffuse subtype, and that H. pylori is responsible for approximately 90% of the world’s burden of non-cardia gastric cancer.

Evidence exists that eradication of H. pylori is a cost-effective strategy to reduce gastric cancer. In the Matsu Islands of Taiwan, mass screening and eradication of H. pylori has decreased gastric cancer by approximately 25%, peptic ulcers by two-thirds, and gastric atrophy by 77% compared with historical data. However, as antibiotic resistance is rising globally, China is facing a challenge in tackling antibiotic resistant H. pylori strains. At this time, only a handful of hospitals/laboratories in China have the capability of culturing H. pylori. The poor success rate in H. pylori culturing makes it difficult to implement a ‘precision medicine’ strategy to choose the most efficient antibiotic resistant H. pylori strains. Since there is no fool-proof guideline to direct antibiotic use after failing the first-line standard triple therapy, clinicians are inclined to treat patients blindly by prescribing random antibiotics, that is, ‘making a guess’.

China is a country burdened with a high prevalence of gastric cancer and H. pylori eradication has been shown to be worthwhile in many studies. The task of finding and eradicating H. pylori, within families, should not be delayed.

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Contributors BM is the sole contributor of this work.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; internally peer reviewed.