In through the out door: serology for atrophic gastritis
Ernst J. Kuipers

- The condition of the gastric mucosa can be evaluated by serology.
- *Helicobacter pylori* immunoglobulin G antibodies provide the best parameter for the presence of gastritis.
- Serum pepsinogen and gastrin levels can diagnose atrophic gastritis with high specificity but low sensitivity.
- Antibodies to *H. pylori* or CagA can diagnose atrophic gastritis with high sensitivity but low specificity.
- A combination of two tests, e.g. *H. pylori* antibodies and pepsinogen I, may balance this issue and provide adequate screening tools.
- Nevertheless, there is a need for further improvement and simplification of serological testing for atrophic gastritis.

Gastric cancer remains the second biggest cause of cancer death worldwide. The most common type of gastric cancer, the intestinal type, is usually preceded by chronic atrophic gastritis. Gastritis serology is therefore of crucial importance for population-based screening and prevention studies. *Helicobacter pylori* serum antibodies can adequately diagnose inflammation of the gastric mucosa, but the serological diagnosis of atrophic gastritis is more hazardous. Many tests have been used for this purpose, either alone or in various combinations. Depending on the population, pepsinogens and gastrin often have a high specificity but low sensitivity for the diagnosis of atrophic gastritis, whereas antibodies against *H. pylori* or CagA have a high sensitivity but low specificity. A combination of two tests, e.g. *H. pylori* antibodies and pepsinogen I, may balance this issue and provide adequate screening tools, although there is a clear need for further improvement and simplification of serological testing for atrophic gastritis.

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Department of Gastroenterology and Hepatology, Erasmus MC University Medical Centre, Rotterdam, the Netherlands.

Correspondence to Ernst J. Kuipers, Department of Gastroenterology and Hepatology, Erasmus MC University Medical Centre, P.O. Box 2040, 3000 CA Rotterdam, the Netherlands.

Tel: +31 10 463 4981; fax: +31 10 463 4692; e-mail: ej.kuipers@erasmusmc.nl

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