

Weck MN, Brenner H. Association of *Helicobacter pylori* infection with chronic atrophic gastritis: Meta-analyses according to type of disease definition. *Helicobacter* 2008; 13(5); 404

Background: *Helicobacter pylori* is a major risk factor for chronic atrophic gastritis (CAG). A large variety of definitions of CAG has been used in epidemiologic studies in the past.

Aim: The aim of this work was to systematically review and summarize estimates of the association between *H. pylori* infection and CAG according to the various definitions of CAG.

Methods: Articles on the association between *H. pylori* infection and CAG published until July 2007 were identified. Separate meta-analyses were carried out for studies defining CAG based on gastroscopy with biopsy, serum pepsinogen I (PG I) only, the pepsinogen I / pepsinogen II ratio (PG I / PG II ratio) only, or a combination of PG I and the PG I / PG II ratio.

Results: Numbers of identified studies and summary odds ratios (95% confidence intervals) were as follows: gastroscopy with biopsy: n=34, OR=6.4 (4.0-10.1); PG I only: n=13, OR=0.9 (0.7-1.2); PG I / PG II ratio: n=8, OR=7.2 (3.1-16.8); combination of PG I and the PG I / PG II ratio: n=20, OR=5.7 (4.4-7.5).

Conclusion: Studies with CAG definitions based on gastroscopy with biopsy or the PG I / PG II ratio (alone or in combination with PG I) yield similarly strong associations of *Helicobacter pylori* with CAG. The association is missed entirely in studies where CAG is defined by PG I only.