

## **Helicobacter pylori infection as an independent prognostic factor for locally advanced gastric cancer with curative resection**

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A few studies reported the association between helicobacter pylori (HP) infection and better overall survival (OS) in resected gastric cancer patients (pts). We investigated the HP infection status and its association with clinicopathologic characteristics in 274 locally advanced gastric cancer pts (stage IB: 25, II: 82, IIIA: 80, IIIB: 39, IV: 48) who underwent adjuvant chemotherapy (CTX) after curative resection (D2 dissection). HP infection status in hematoxylin and eosin stained peritumoral tissue was graded according to the updated Sydney System and categorized as HP (-) (normal or mild infection) and HP(+) (moderate or marked infection) (Am J Surg Pathol 20:1161, 1996). Eighty-one pts received 5-FU, doxorubicin (DOX) CTX (5-FU 500 mg/m<sup>2</sup> weekly for 36 wks, DOX 40 mg/m<sup>2</sup> q 3 weeks x 12) with or without OK432, while 193 pts underwent 5-FU, mitomycin-C (MMC), and polysaccharide-K (PSK) CTX (5-FU 500 mg/m<sup>2</sup> weekly for 24 wks, MMC 8 mg/m<sup>2</sup> q 6 wks x 4, PSK 3 g/day for 16 wks) (Br J Cancer 84:186, 2001, Hepatogastroenterol 54:290, 2007). The median follow-up duration of survivors was 135 (112-176) months. HP (-) was significantly correlated with old age (>54), total gastrectomy, Bormann type IV, larger tumor size (>5cm), and stage IIIB. In univariate analysis, pts with HP(-) (138 pts) demonstrated significantly poor 10-year OS compared with those with HP (+) (136 pts) (20.9% vs. 82.3%, p<0.0001). HP(-) was associated with poor outcome in all stages. In multivariate analysis, HP(-) was the most significant independent prognostic factor of poor OS (hazard ratio: 6.32, 95% CI: 4.10-9.74, p<0.0001) followed by advanced stage (p=0.001) and old age (p<0.0001). HP infection status seems to have strong prognostic significance in locally advanced gastric cancer. HP (-) pts may need intensified adjuvant treatment and careful follow-up.