



## Combined expression of gastrointestinal hormone SP and anti-apoptosis gene *Bcl-2* in gastric carcinoma

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### Abstract

**AIM:** To study the combined expression of gastrointestinal hormone substance P and anti-apoptosis gene *Bcl-2* in gastric carcinoma and its significance.

**METHODS:** Substance P and *Bcl-2* protein expression was examined by the SP immunohistochemical method in 33 cases of gastric carcinoma, 17 adjacent the carcinoma and 13 normal gastric mucoma.

**RESULTS:** Positive expression of SP in gastric carcinoma was higher than that of both adjacent and normal mucosa ( $P < 0.001$ ). There was no statistical difference in the positive expression between adjacent and normal mucosa ( $P > 0.05$ ). The expression of *Bcl-2* both in gastric carcinoma and adjacent tissues were higher than that of normal gastric mucosa ( $P < 0.05-0.01$ ). But the positive expression of *Bcl-2* had no statistical significance between gastric carcinoma and adjacent tissues.

**CONCLUSION:** Both gastrointestinal hormone SP and *Bcl-2* gene have synergistic expression in gastric carcinoma, indicating that they all take part in the occurrence of gastric carcinoma. Abnormal expression of *Bcl-2* gene occurred in benign gastric pathological changes, once they become carcinoma, the positive expression of cell is no more increased, possibly because that there is no more increase of the intensity of *Bcl-2* inhibition of cell apoptosis.

**Key words:** Stomach neoplasms; Gastrointestinal hormones; Gastric mucosa; Substance P; Apoptosis; Immunohistochemistry

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