

中文題目：類胰島素生長因子及其結合蛋白在胃癌的發生及轉移之角色

英文題目: **The role of insulin-like growth factor and its binding proteins on the progression and survival in gastric cancer**

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前言(Background): Overexpression of insulin-like growth factors (IGFs) and their binding proteins is associated with progression and survival in several cancers. However, their roles in the progression of gastric cancer remains poorly understood. We aimed to assess the impact of circulating levels of levels of IGF1, IGF2 and their binding proteins (IGFBP1, IGFBP2, IGFBP3) on the progression and survival of gastric cancer.

材料及方法(Materials and Methods): This prospective hospital-based cohort study enrolled consecutive patients with gastric cancer diagnosed from 2002–2010. Healthy subjects were enrolled as controls. Plasma levels of IGF1, IGF2, IGFBP1, IGFBP2, and IGFBP3 were determined by commercially available enzyme-linked immunosorbent assay or radioimmunoassay kits. Their impact on gastric cancer survival was analyzed by log-rank test and Cox proportional hazards regression models.

結果(Results): Overall, 273 gastric cancer patients and 114 healthy controls were enrolled. Plasma levels of IGFBP2 were significantly higher in patients with gastric cancer versus healthy controls ($p < 0.001$), and in those with more advanced AJCC stages ($p < 0.001$). There was no significant difference in the plasma levels of IGF1, IGF2, IGFBP1, and IGFBP3 between gastric

cancer patients and controls. Patients with lower IGFBP2 levels had better survival than those with higher IGFBP2 tertile levels (hazard ratio=1.28; 95% confidence interval=1.05-1.57; p=0.014) after adjustment for age, gender, and AJCC stage. In contrast, the survival did not significantly differ according to plasma IGF1, IGF2, IGFBP1, and IGFBP3 levels.

結論(Conclusion): Plasma level of IGFBP2 was higher in patients with gastric cancer versus controls and correlated with disease stage and survival. Thus, IGF axis may be a potential therapeutic target for gastric cancer.

Keywords: gastric cancer, insulin-like growth factor, binding proteins, survival, progression