

## 上海地区胃癌病人运铁蛋白(Tf)、组特异性成分(Gc)、 $\alpha 1$ -抗胰蛋白酶( $\alpha 1$ -AT)亚型分布的研究

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**摘要** 用薄层聚丙烯酰胺凝胶等电聚焦电泳分析了上海地区202例汉族胃癌病人及202例正常对照组的运铁蛋白(Tf)和 $\alpha 1$ -抗胰蛋白酶( $\alpha 1$ -AT)亚型的分布,发现胃癌组Tfc1c1纯合子频率(0.3713)和Tfc1基因频率(0.5718)显著低于对照组(分别为0.5149和0.6782),均为 $p < 0.01$ ,胃癌组Tfc2c2纯合子频率(0.2228)和Tfc2基因频率(0.4019)显著高于对照组(分别为0.1436,  $p < 0.05$ 和0.2970,  $p < 0.01$ ),胃癌组和对照组的 $\alpha 1$ -抗胰蛋白酶亚型分布无显著差异。用薄层聚丙烯酰胺等电聚焦结合免疫固定分析了上海地区200例汉族胃癌病人和200例正常对照组的组特异性成分(Gc)亚型分布,发现胃癌组Gc1F表型频率(0.22)和Gc1F基因频率(0.4375)均显著高于正常对照组(分别为0.14和0.3600,均为 $p < 0.05$ )。

**关键词** 胃癌,运铁蛋白(Tf),组特异性成分(Gc), $\alpha 1$ -抗胰蛋白酶( $\alpha 1$ -AT),聚丙烯酰胺凝胶电泳,等电聚焦

分类号

## Studies of Distribution of Subtypes of Transferrin, Group-specific Component, $\alpha 1$ -Antitrypsin in Gastric Cancer Patients from Shanghai Area

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### Abstract

The genetic polymorphisms of transferrin (Tf) and  $\alpha 1$ -Antitrypsin ( $\alpha 1$ -AT) in 202 gastric cancer patients and 202 controls in Shanghai Hans were analyzed by isoelectric focusing. In transferrin, the phenotype frequency of C1C1 and gene frequencies of c1 and c2 were 0.3713, 0.5718 and 0.4109 respectively in gastric cancer patients, and 0.5149, 0.6782 and 0.2970 separately in controls. The frequencies of the c1c1 phenotype and the C1 gene increased significantly ( $p < 0.01$ ) among the controls, while the frequency of the C2 gene greatly increased ( $p < 0.01$ ) among the patients. The frequencies of the C2C2 in gastric cancer patients and controls were 0.2228 and 0.1436 respectively, showing a significant difference between them ( $p < 0.05$ ). The genetic polymorphisms of group-specific component (Gc) in 200 gastric cancer patients and 200 controls in Shanghai Hans were studied with isoelectric focusing followed by immunofixation. The Gc1F1F phenotype frequency and 1F gene frequency were 0.22 and 0.4375 in gastric cancer patients, and 0.14 and 0.3600 in controls, respectively. The frequencies of the Gc1F1F phenotype and the 1F gene were significantly increased ( $p < 0.05$ ) among the patients. In  $\alpha 1$ -Antitrypsin, there was no significant difference in phenotype frequencies and gene frequencies between the patients and controls. The data reported here indicate that the gastric cancer is associated positively with Tfc2 and Gc1F, and negatively with Tfc1. These facts support the notion that cancerogenesis is a multi-step process controlled by multifactorial inheritance.

**Key words** [Gastric Cancer](#) [Transferrin\(Tf\)](#) [Group-Specific Component \(Gc\)](#)  [\$\alpha 1\$ -Antitrypsin\( \$\alpha 1\$ -AT\)](#) [Polyacrylamide gel electrophoresis \(PAGE\)](#) [Isoelectric focusing \(IEF\)](#)

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