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肿瘤防治

结直肠癌患者血清及粪便中P53基因检测的临床意义

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摘要 背景与目的： 研究大肠癌患者血清P53-Ab、粪便P53基因突变与癌组织中P53蛋白表达之间关系，以探讨P53基因在大肠癌发生与早期诊断中的作用及临床意义。 材料与方法： 运用酶联免疫吸附分析(Enzyme-linked immunosorbent assay，ELISA)法检测34例大肠癌患者及10例健康人血清P53-Ab，运用聚合酶链反应－单链构象多态性分析(Polymerase chain reaction-single strand conformation polymorphism,PCR-SSCP)分析16例大肠癌患者粪便P53基因第5～8外显子突变，同时运用PCR-SSCP与免疫组化法分析癌组织中P53基因突变及蛋白表达状况。 结果： 大肠癌中血清P53-Ab阳性率为17.6%，正常对照组为阴性。癌组织中P53基因突变率及蛋白表达率分别为52.9%和55.9%,正常黏膜未见P53基因突变及蛋白表达。16例P53基因突变的患者其粪便中基因突变率为43.8%。P53基因突变及蛋白表达与P53-Ab存在及临床病理因素无关。 结论： P53基因突变是参与和影响P53蛋白表达的主要因素，P53蛋白表达可诱导P53-Ab产生。大肠癌患者粪便中可检测出P53基因突变，粪便P53基因及血清P53-Ab检测可有助于大肠癌的诊断及高危人群的筛检普查。

关键词 大肠肿瘤； 基因； P53； 聚合酶链反应； 酶联免疫吸附分析； 免疫组化

Clinical Significance of P53 gene in Serum and Stool of Patients with Colorectal Cancer

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Abstract BACKGROUND＆AIM: To study the relationship between serum P53 antibody, gene mutation,protein expression and their roles in the early diagnosis and clinical significance in colorectal tumors. MATERIAL AND METHODS: P53 antibody of preoperative serum from 34 patients with colorectal cancer and 10 healthy persons was measured by enzyme-linked immunosorbent assay (ELISA). At the same time, by using polymerase chain reaction-single strand conformation polymorphism (PCR-SSCP) and immunohistochemistry (IHC) (S-P methods), the mutations in exon 5－8 of the P53 gene and protein expression were examined. RESULTS: P53 antibody was positive in 6 of 34 (17.6%) patients with colorectal cancers, but was not found in serum of normal controls. The mutation of exon 5－8 and protein expression of P53 gene were found in 18 of 34(52.9%) and 19 of 34(55.9%) cases, respectively. No mutation and protein expression were positive in normal mucosa. Of 16 patients who were positive for P53 gene mutation in their tumor tissue, 7(43.8%) had evidence of alterations in the P53 gene within the stool. No relationship was found between P53 antibody, protein expression, P53 gene mutation and cliniopathological factors. CONCLUSION: Our data indicate that mutation of P53 gene was one of the main factors which caused its protein expression,hence inducing serum P53 antibody formation. P53 gene mutation could be detected within the stools. Detection of P53 serum antibody and gene mutation in stool may provide new ways for the early diagnosis and survey of population at high risk of colorectal cancers.

Keywords colorectal neplasms gene P53 polymerase chain reaction Enzymed-linked immunosorbent assay immunohistochemistry

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