

研究报告

IL-1b基因单核苷酸多态性与腰椎间盘突出疾病的相关性

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摘要

为研究汉族人白细胞介素-1b (IL-1b) 基因^{-511T>C}和^{+3954C>T}位点单核苷酸多态性与腰椎间盘突出疾病的关系, 采用聚合酶链反应技术, 扩增 81 例腰椎间盘突出疾病患者和 101 例正常对照者中分别包含IL-1b 基因^{-511T>C}和^{+3954C>T}位点的片段, 酶切法鉴定 IL-1b 基因^{-511T>C}和^{+3954C>T}位点单核苷酸多态性情况, 比较两组中基因多态性与腰椎间盘突出疾病的关系。同时, 利用 MRI 检测两组腰椎间盘突出退变的情况, 并分析其中小于45岁者IL-1b 基因多态性与腰椎间盘突出退变严重程度的关系。结果显示, 腰椎间盘突出疾病病例组及对照组中均存在IL-1b 基因^{-511T>C}和^{+3954C>T}位点单核苷酸多态性。IL-1b 基因^{-511T>C}位点 TT、TC 和 CC 基因型, T、C 基因型差别与腰椎间盘突出疾病有关 (P<0.01), 与腰椎间盘突出退变严重程度无关 (P>0.05), 但IL-1b 基因^{+3954C>T}位点单核苷酸多态性与腰椎间盘突出退变严重程度及腰椎间盘突出疾病均无关 (P>0.05)。表明在汉族人中, 存在 IL-1b 基因^{-511T>C}和^{+3954C>T}位点单核苷酸多态性, 但仅^{-511T>C}位点单核苷酸多态性与腰椎间盘突出疾病有关。

关键词 [白细胞介素-1β](#) [单核苷酸多态性](#) [椎间盘退变](#) [椎间盘突出疾病](#)

分类号

Association of single nucleotide polymorphisms of IL-1b with lumbar disc disease

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Abstract

<P>This study was to explore the relationships between ⁻⁵¹¹T>C and ⁺³⁹⁵⁴C>T single nucleotide polymorphisms(SNP) in <i>IL-1</i> gene with lumbar intervertebral disc disease. We analyzed ⁻⁵¹¹T>C and ⁺³⁹⁵⁴C>T SNP in 81 cases with lumbar disc disease and 101 healthy controls. The relationship between

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⁻⁵¹¹T>C and ⁺³⁹⁵⁴C>T SNP in *IL-1* IL-1b</I>gene and lumbar disc disease in two groups was measured, so does the relationship between ⁻⁵¹¹T>C and ⁺³⁹⁵⁴C>T SNP in *IL-1* IL-1b</I>gene and intervertebral disc degeneration in those younger than 45-year-old. The results showed there were ⁻⁵¹¹T>C and ⁺³⁹⁵⁴C>T SNP in *IL-1* IL-1b</I>gene. There was a significant difference in the distribution of TT, TC and CC genotype or T, C genotype of ⁻⁵¹¹T>C of *IL-1* IL-1b</I>in two groups. And there was no significant difference in the distribution of ⁺³⁹⁵⁴C>T SNP in *IL-1* IL-1b</I>between the distribution of ⁻⁵¹¹T>C and ⁺³⁹⁵⁴C>T SNP in *IL-1* IL-1b</I>gene and intervertebral disc degeneration in those younger than 45-year-old. It suggested ⁻⁵¹¹T>C SNP in *IL-1* IL-1b</I>gene be one of the susceptible alleles for Lumbar disc disease.</P>

Key words [IL-1 \$\beta\$](#) [single nucleotide polymorphism](#) [lumbar disc disease](#) [lumbar disc degeneration](#)

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