

只要密切监护尚属安全,血清 PRL 的连续测定可以作为一项较可靠的监测指标。

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#### · 简 报 ·

## 抗肌萎缩蛋白基因 51 号外显子的精确定位\*

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**关键词** 抗肌萎缩蛋白基因; 外显子; 限制酶图谱

**中图分类号** R 746.2

抗肌萎缩蛋白基因是迄今发现的人类最大基因, 长约 2300 kb, 含有 75 个外显子<sup>[1]</sup>。对该巨大基因的研究是近年来医学分子生物学研究的一个热点。虽然抗肌萎缩蛋白基因 Hind III 片段<sup>1</sup>排序后就知道第 51 号外显子位于 3.1 kb 的第 40 号 Hind III 片段中<sup>[2]</sup>, 由于抗肌萎缩蛋白基因组 DNA 至今未被克隆, 233bp 的第 51 号外显子在 3.1 kb Hind III 片段中的部位并不知道, 也不知道它两侧的 DNA 结构。51 号外显子

位于抗肌萎缩蛋白基因缺失热区, 是探讨假肥大型肌营养不良症机制的重点区域。因此对 51 号外显子的精确定位和分析就显得特别重要。

我们用 cDMD 8 探针, 从人 X 染色体噬菌体文库中筛选出 ZF-801 克隆, 经 Southern 杂交鉴定(探针 cDMD 8) 该克隆含有 3.1 kb Hind III 杂交片段, 提示含有第 51 号外显子。用 EcoRI、Hind III 和 kpnI 部分酶切该克隆 DNA, 经与  $\lambda$  噬菌体末端顺序互补的 12 碱基片段 ON-L 和 ON-R 标记探针杂交, 采用我们实验室建立起来的快速限制酶图谱分析法, 首次

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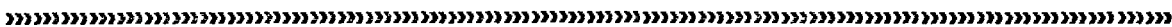
## COMPLICATIONS AND TREATMENT OF LIMB LENGTHENING AND SHORTENING OPERATION

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Thirty three patients with unequal leg-length had been operated in our hospital from 1977 to 1984. The procedures included femoral and tibial lengthening, innominate osteotomy, arrest of epiphyseal growth and shortening of opposite femur. There were 52 episodes of complications such as neurologic injury, delayed union, refracture and intramedullary pin broken. The overall complication rate was high. The causes of each complication were analyzed and the protective and treatment measures were proposed.

**Key words** leg-length disorepancy; leg lengthening; innominate osteotomy; complication



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绘制了抗肌萎缩蛋白基因第 51 号外显子及两侧 DNA 的精细限制酶图谱。在 13 kb 插入片段中, 有 3 个 kpnI 切点, 4 个 EcoRI 切点, 5 个 Hind III 切点。图谱上第 51 号外显子的 3.1 kb Hind III 片段中, 只有一个 kpnI 切点, 位于 3.1 kb Hind III 片段的中央。由于已证实克隆 ZF-801 的 3.1 kb Hina III 片段中含有 51 号外显子, 在 51 号外显子中有一个 kpnI 切点 (将 233 bp 的 51 号外显子分为 99 bp 和 134bp), 而 3.1 kb Hind III 片段中只有一个 kpnI 切点, 故可把 51 号外显子确切定位在 3.1 kb Hind III 片段的中央。根据这一定位, 我们成功地测定了邻近 51 号外显子的 50 和 51 号内含子的核苷酸顺序, 发现了几个核苷酸的重复顺序, 它们可能是导致抗肌萎缩蛋白基因 DNA 断

裂和缺失结构的原因, 该发现为阐明假肥大型肌营养不良症的发病机制提供了资料。

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# THE LEVELS OF THE MATERNAL SERUM PRL AND $E_2$ AND THEIR RELATIONSHIP DURING PREGNANCY IN NORMAL WOMEN AND IN THE WOMEN WITH PROLACTINOMA

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This study comprised of 180 normal pregnancies and 8 patients with prolactinoma who became pregnant after CB-154 treatment. The results are as follows: 1) Serum PRL in both groups was gradually elevated till the third trimester gestation. The PRL concentrations were significantly higher in prolactinoma group than those in normal group during 6th-16th weeks of gestation. 2) Serum  $E_2$  levels increased with developing of gestation and no statistical differences were observed between the two groups. 3) Significant correlations were found between serum PRL,  $E_2$  levels and the weeks of gestation, respectively. 4) The correlation between serum PRL and  $E_2$  concentration was significant only in the second trimester of normal group whereas it was significant in first trimester in prolactinoma group. These results suggested that serum PRL and  $E_2$  concentrations were increasing gradually during the whole period of gestation, but their correlation was significant only in some stages of gestation. It seems that  $E_2$  was the main stimulator of PRL-secretion, however it was not the only modulator during pregnancy. That the serum levels of PRL and  $E_2$  showed no remarkable differences between two groups indicates that prolactinoma does not affect  $E_2$ -production in the placental and that PRL secretion is autonomous. Hence, we deduce that women with prolactinoma would be well being during their pregnancy and that periodic PRL assay is one of the reliable monitoring index.

**Key words** normal pregnant women; serum PRL;  $E_2$ ; gestational prolactinoma; weeks of gestation