

## 北京地区汉族妇女雌激素受体基因XbaI多态性与骨密度和体重指数的关系

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**摘要** 为探讨北京地区汉族妇女雌激素受体(ER)基因XbaI多态性与骨密度的关系,采用双能X线吸收仪检测腰椎、股骨及前臂骨密度;采用聚合酶链反应-限制性片段长度多态性(PCR-RFLP)法,对179例北京地区汉族妇女ER基因XbaI多态性进行分析。北京地区汉族妇女ER基因XX、Xx和xx基因型频率分布为0.302、0.464和0.234,绝经前与绝经后妇女XbaI型基因频率分布有明显差异,绝经后妇女腰椎骨密度( $0.836 \pm 0.18$ )g/cm<sup>2</sup>明显低于绝经前妇女( $1.038 \pm 0.14$ );绝经后妇女骨质疏松症的发病率为54%。ER基因XbaI基因型频率分布有明显的种族差异并受绝经影响,ER基因XbaI基因型与骨密度无明显相关性。与体重和BMI有明显相关性。

**关键词** [雌激素受体](#) [XbaI基因型](#) [骨密度](#) [体重指数](#)

分类号

## XbaI Polymorphisms of the Estrogen Receptor Gene and Bone Mineral Density and BMI in Beijing Han Women

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### Abstract

The work is to study the relationship between XbaI polymorphisms of the estrogen receptor(ER) gene and bone mineral density in Beijing Han women. Bone mineral density(BMD) was measured at lumbar spine, proximal femoral and arm by dual energy X-ray absorptiometry(DEXA) and ER gene was determined by polymerase Chain reaction-restriction fragment length polymorphism(PCR-RFLP) in 179 Beijing Han women. The frequency of the ER genotype of XX, Xx and xx was 0.302, 0.464 and 0.234 in Beijing Han women. There was a significant difference between premenopausal and postmenopausal women in the frequency of the XbaI genotype. The BMD of lumbar spine in postmenopausal women ( $0.836 \pm 0.18$ g/cm<sup>2</sup>) was significantly lower than that in premenopausal women ( $1.038 \pm 0.14$ g/cm<sup>2</sup>) ( $P < 0.01$ ) and the incidence of osteoporosis in postmenopausal women was 54.3%. The frequency of XbaI genotype of ER gene in Han women. There was apparently different from that in other races in and menopause effected on the frequency of XbaI genotype. The XbaI genotype of ER gene was nonassociated with BMD. and significantly associated with BMI.

**Key words** [estrogen receptor](#) [XbaI genotype](#) [bone mineral density](#) [BMI](#)

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