

# 熟地配伍黄芪对去卵巢大鼠骨代谢的影响<sup>\*</sup>

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**摘要:**目的 观察熟地配伍黄芪对去势大鼠骨代谢及调控途径的影响。方法 去卵巢造模后的60只大鼠随机分为六组,黄芪组,熟地组,熟地配伍黄芪组,雌激素组,模型对照组,空白对照组。分别给予相应的药物灌胃,连续给药16w,处死动物取血清和骨组织,进行骨代谢及wnt通路表达相关指标检测。结果 与模型组比较,熟地-黄芪组大鼠血清TRACP水平明显降低( $P < 0.05$ ),IGF-1水平明显升高( $P < 0.05$ );大鼠骨组织Wnt2、LRP5及 $\beta$ -catenin mRNA表达水平均出现明显升高( $P < 0.01$ )。结论 熟地配伍黄芪可能通过Wnt/LRP/ $\beta$ -catenin信号通路的激活,降低破骨细胞活性,促进成骨细胞生成,从而达到调节骨代谢的目的。

**关键词:**熟地;黄芪;绝经后骨质疏松;骨代谢

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## Effects of Radix Rehmanniae Preparata and Astragalus Membranaceus on Bone Metabolism in Ovariectomized Rats

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**Abstract Objective:** To observe the effects of radix rehmanniae preparata and astragalus membranaceus on bone metabolism and regulation approach in ovariectomized rats. **Method:** After ovariectomy, 60 rats were randomly divided into six groups: astragalus membranaceus group, radix rehmanniae preparata group, radix rehmanniae preparata and astragalus membranaceus group, estrogen group, model control group and blank control group. Gavage with corresponding drugs was given to the groups for 16 weeks. Then the animals were sacrificed and the serum and bone tissues were taken out, the bone metabolism and related indicators of Wnt pathway expression were detected. **Result:** Compared with the model group, the level of serum TRACP in the rats of Radix Astragali group significantly decreased ( $P < 0.05$ ), and the level of IGF-1 increased significantly ( $P < 0.05$ ), the expression level of Wnt2, LRP5 and  $\beta$ -catenin mRNA in the bone tissue of rats increased significantly ( $P < 0.01$ ). **Conclusion:** The compatibility of radix rehmanniae preparata with astragalus membranaceus can activate the Wnt/LRP/ $\beta$ -catenin signaling pathway, reduce the activity of osteoclasts, promote the formation of osteoblasts, and thus achieve the purpose of regulating bone metabolism.

**Keywords** radix rehmanniae preparata, astragalus membranaceus, postmenopausal osteoporosis, bone metabolism

绝经后骨质疏松症(Postmenopausal osteoporosis, PMOP)是绝经后妇女的常见病及多发病,

一般发生在女性绝经后5~10年内,是由于绝经后妇女的卵巢功能减退、雌激素水平下降,骨

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