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DT56a (Femarelle) stimulates bone formation in female rats.

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OBJECTIVE: DT56a is a natural compound for the treatment of menopausal symptoms and osteoporosis. The aim of this study was to examine the effects of long term treatment (two months) with DT56a on the skeletal tissues of intact and ovariectomised (OVX) adult rats. DESIGN: Thirty rats were divided into two groups, in one of which the rats were ovariectomised. The rats in each group were then treated for two months with DT56a, oestrogen or vehicle. SETTING: University and hospital laboratories. POPULATION: Thirty rats. METHODS: Histomorphometric measurements of trabecular bone volume (expressed as a percentage of total bone volume), trabecular and cortical thickness and growth plate width were recorded by a computerised system. In addition, creatine kinase (CK)-specific activity, as marker of oestrogen receptor activation, was measured in skeletal tissues and in the uterus. MAIN OUTCOME MEASURES: The changes in the histomorphometric measurements. RESULTS: OVX rats developed noticeable signs of osteoporosis, namely, significant decrease in trabecular bone volume and in trabecular and cortical thickness. DT56a, like oestrogen, restored the bone structure measurements of all tested parameters in the OVX rats to the values obtained in the intact rats. In skeletal tissues, CK activity was elevated in both treatment groups. However, in the uterus DT56a did not activate oestrogen receptors while oestrogen did elevate CK activity. CONCLUSIONS: DT56a was as effective as oestrogen in reversing the bone changes caused by OVX in rats.