PREVENTION OF THE BONE TISSUE QUALITATIVE DETERIORATION IN MENOPAUSE WITH RALOXIFENE

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To quantify the cancellous bone qualitative deterioration in the first year of menopause, appraising the preventive effect of raloxifene (RLX) in comparison to the integration of calcium.
60 women were studied after 12 months from the menopause if the BMD T-Score were inclusive ± 0.5 SD from the middle value of peak and the 17-beta-E2 were <30 pg/ml. The group 1 (N=30) was treated with RLX 60 mg/die and calcium 500 mg/die for 12 months. The control group 2 (N=30) assumed only 500 mg/die of calcium. The bone tissue qualitative deterioration was measured at the calcaneus bone through Hologic Sahara that furnishes *in vivo* qualitative and quantitative informations of the trabecular architecture.
In the patients treated with RLX all the parameters were unchanged both after 6 months and after 12 months (p=NS). In the control group the ultrasonografic parameters were significantly decreased after 6 months (BUA 73.9±2.0 dB/MHz vs 76.0±2.0 dB/MHz, -2.8±1.6% SOS -1.4±0.8%, BUA T-score -0.23±0.2 S.D.), and after 12 months (BUA 71.4±2.0 dB/MHz, -6.1±1.6%, (range 3.6%-8.6%), SOS -3.5±0.8%, BUA T-score -0.51±0.2 S.D.).
The significant variations of the ultrasonografic parameters suggest a precocius onset and a rapid progression of the qualitative damage of cancellous bone in menopause. Quantitative Ultrasound (MOC-QUS) confirms *in vivo* the ability to recognize the qualitative modifications of the trabecular architecture. RLX prevents the bone tissue qualitative deterioration while the calcium therapy alone can't prevent post-menopausal osteoporosis.

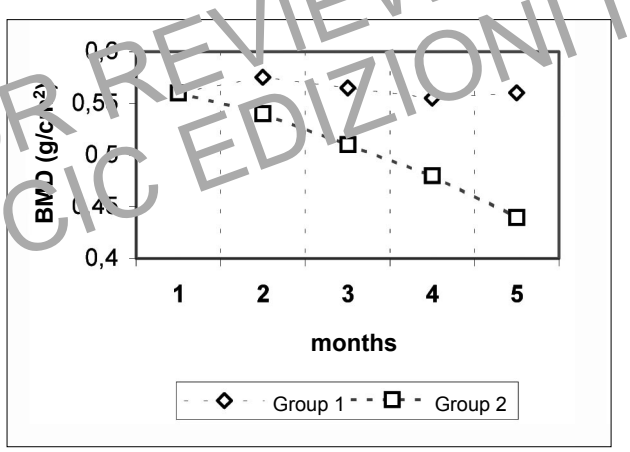

Figure 1 - Significant BMD reduction in calcium group (group 2) in comparison to RLX (group 1).

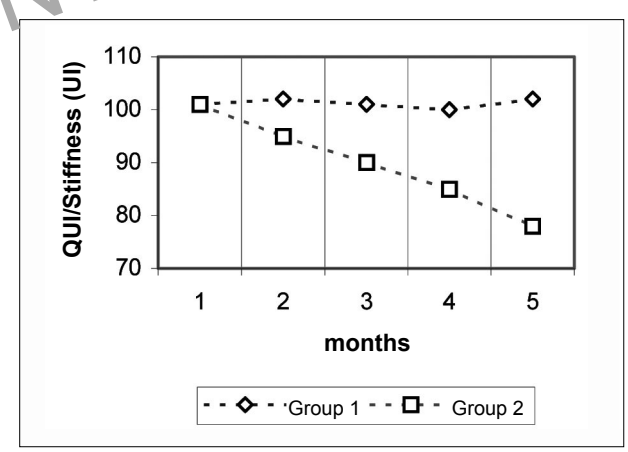

Figure 2 - Significant QUI/Stiffness bone loss in calcium group (group 2) in comparison to RLX (group 1).