BMD AND MARKERS OF BONE TURNOVER IN PATIENTS RECEIVING TERIPARATIDE

A. Masala[1], S. Alagna, P. Pileri, P. Rovasio, A. Sini, P. Maninchedda, G. Alagna, A. Barra, S. Barone, S. Piras, R. Faedda

Department of Internal Medicine, University of Sassari, Italy
[1] Associate Professor

We evaluated the effect of subcutaneous teriparatide, 20 µg/day in a group of 16 postmenopausal patients with severe osteoporosis and multiple vertebral fractures.Vertebral (L1-L4) and femoral neck BMD (g/cm^2), plasma PTH (pg/ml), Osteocalcin (ng/ml) and Telopeptide (µg/l) levels were measured in all patients under control conditions. BMD values and plasma O and T levels were assessed again after 6 months of treatment. Pain was significantly reduced in all of the patients after 2 months of therapy. Vertebral BMD values were increase in all of the patients after 6 months from a basal value of 0.64±0.12 (mean±S.D.) to 0.66±0.09 g/cm^2. Plasma T levels were significantly reduced from a basal values of 4.24±1.36 µg/l to 3.05±0.83 ($p<0.01$); plasma O levels increased from an average value of 7.10±2.33 ng/ml to a value of 11.10±3.86, but the increment did not reach statistical significance. Our data, obtained in post-menopausal patients previously treated with bisphosphonates, indicate that teriparatide treatment is able to increase vertebral BMD values after 6 months. The reduction of T values and the increase in O levels indicates an active bone turnover in spite of the previous treatment with bisphosphonates.