

505 Bone loss following oophorectomy in terms of region and postoperative interval. H.Ohta, K.Nemoto, Dept.Obst.and Gynec.,Tokyo Electric Power Hospital,Tokyo.

We investigated whether there is a decrease in regional bone mineral density(BMD) after oophorectomy(OPX), and whether there are differences in bone loss in terms of region and continuity following OPX. The BMD was measured by dual photon absorptiometry in 47 premenopausal oophorectomized subjects and 127 age-matched females. In OPX subjects, the spinal BMD was significantly lower than those of the cranium, arms and legs. Furthermore the oophorectomized subjects were divided into four groups according to duration after OPX as follows; 0-2(n=14), 3-5(n=9), 6-10(n=12) and over 10 years(n=12). There were no differences in the cranial BMD among the four groups, whereas the spinal BMD of the over-10-year group was significantly lower than those of(3-5)-year group ($p<0.05$). On the other hand, in the over-10-year group, the spinal BMD was the lowest and significantly decreased in comparison to BMD of the extremities ($p<0.01$).

These results suggest that bone loss in oophorectomized subjects occurs mainly in axial bone such as spine rather than the extremities, and this spinal bone loss might continue for over 10 years after OPX.

506 Study of back and low back pain and osteoporosis with DPA,MD,MD/MS and CR —before and after treatments. K.Naitoh,H.Honjo,Y.Ogino,M.Urabe,J.Kitawaki,J.Yasuda,T.Yamamoto,H.Okada, Dept.of OB/GYN,Kyoto Prefec.Univ. of Med.,Kyoto

Back and low back pain and osteoporosis are becoming important as Japanese women of middle and advanced ages are increasing much.Out patients (33~80y.o.) in our dept.with back and low back pain (25cases) and/or osteoporosis (5cases) have been treated with elcatonin (El.10MRC unit/several days,i.m.,20cases,~12M) or 1 α (OH) vitamin D₃ (D₃.1 μ g/day,p.o.,~2Y and 11M). Dual photon absorptiometry(DPA), microdensitometry(MD), multiple scanning X-ray photo-densitometry(MD/MS), computed radiography(CR) were performed before and after the treatments. Bone mineral density(BMD) of L₃ with DPA was correlated well Σ GS/D (bone mineral content index/diameter) in MD and Σ GS in MD/MS. MD and MD/MS,simple and easy method,are thought as useful as DPA. Pains of patients decreased very much under the treatment of El. BMD(L₃,DPA) of patients increased some ($p<0.05$) under the treatment of D₃. In conclusion,we,gynecologists who can use estrogen may treat these patients also with these drugs.

507 Quantitative measurement of spinal bone density by dual energy X-ray absorpsiometry (QDR-1000):comparison with microdensitometry method. M.SODA, H.MIZUNUMA, S.HONJO, H.MATSUI, M.IGARASHI, Dept.Obst.and Gyne.,Gunma Univ., Sch. Med., Maebashi

Spinal bone mineral density (BMD) of Japanese women with normal menstrual cycles or spontaneous menopause was quantitatively measured by QDR-1000 (Hologic). The peak BMD was observed in women aged 30-39 years old and was 1.066 ± 0.025 g/cm² (mean \pm SE). BMD of the postmenopausal women was significantly less than that of the premenopausal women of the same age, and showed rapid decrease within 5 years. There was significant correlation between BMD and serum E₂ levels ($r=0.552, p<0.001$), confirming that loss of ovarian function is primarily involved in bone degradation in Japanese women,too.The total MD score had a weak correlation ($r=-0.524; p<0.01$) with BMD, but each parameter such as MCI, GSmin, GSmax and Σ GS/D demonstrated significant correlation ($R=0.652-0.766; p<0.001$) and is thought to be useful for screening of osteoporosis.