151. BMI in Various Gynecological Cases Diagnosed to Have Osteoporosis by Micro Densitometry Method

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Since physical constitution is considered to be related to osteoporosis, body mass index (BMI): weight (kg)/(height)^2 (m) was compared between various gynecological cases diagnosed to have osteoporosis by micro densitometry method (MD) and those without osteoporosis which were normal by MD. The subjects included 11 premenopause osteoporosis cases (premenopause o.p. (+)) and 28 premenopause MD normal cases (premenopause o.p. (−)) used for comparison, 32 menopause osteoporosis cases (menopause o.p. (+)) and 35 MD normal menopause cases (menopause o.p. (−)) used for comparison, and 21 cases of osteoporosis castrated by operation (operation o.p. (+)) and 28 MD normal cases (operation o.p. (−)) used for comparison. In general BMI values were significantly lower in o.p. (+) cases than MD normal cases. Similarly, premenopause o.p. (+) cases gave lower BMI values than premenopause o.p. (−) cases. Operation o.p. (+) cases had significant lower values than operation o.p. (−) cases. In each parameter as assessed by MD method difference was seen.

152. Changes in Serum Levels of Apolipoprotein A_1 and Apolipoprotein B by Age and Sex, and their Relations with Hypercholesterolemia

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The changes in serum levels of apolipoprotein A_1 (apo A_1) and apolipoprotein B (apo B) by age and sex, and their relations with serum total cholesterol level were investigated in 150 normal and 52 hypercholesterolemic subjects aged from 21 to 87 years.

Serum apo A_1 and -B levels were determined by an immunoturbidity method, and the serum cholesterol level by an enzymatic method. The serum apo B level was markedly elevated in normal women aged 50 years, and reached a high plateau in those with the more advanced age. However, serum apo B level of normal men did not increase with aging.

So far as the serum apo A_1 there were neither changes with chronological age in both men and women nor sex differences in all ages from 20s to 80s.

The serum cholesterol in normal and hypercholesterolemic subjects was positively correlated with serum apo B, but not with serum apo A_1.

These results suggest that a reducing ovarian function with aging was most closely related to the increase of serum apo B.

153. The Variability of Oxygen Consumption in Goat Fetus during Extrauterine Incubation

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The oxygen metabolism of the goat fetus during extrauterine incubation was investigated. The umbilical vessels of ten fetuses were cannulated and arterio-venous extracorporeal membrane oxygenation (ECMO) circuits were established. The oxygen deliveries and consumptions were calculated. The oxygen consumption rate (OC) was almost constant and not correlated with the delivery rate. The difference between the mean values of OC during the REM period and the nonREM period was not significant. The variability of OC during the nonREM period evaluated by the coefficient of variation (CV) decreased with gestational age. On the other hand, the CV of OC during the REM period remained unchanged. These data suggest that the oxygen consumption of the extrauterine fetus varies with the fetal state and that the decrease of the OC variability during the nonREM period reflects the fetal maturation.

154. Development of Eyelid Movement in the Human Fetus

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To investigate the biophysical profiles of the human fetus, we observed eyelid movements, using real-time ultrasound (HITACHI EUB-340). In the B-