

121 Effects of relaxin to ripening of the rat uterine cervix. M.Nakano, K.Sakihira, Y.Shimizu, K.Ochiai, Y.Terashima, Dept.Obst.and Gyne. Jikei Univ.Sch.Med.,Tokyo.

To know the fundamental mechanism of relaxin, we investigated uterine cervix morphologically and biochemically after administration of relaxin and DHA-S respectively. Relaxin was obtained from corpus luteum of porcine ovaries according to the method of Walsh and Niall.

Results obtained were as follows; After administration of relaxin, collagen fibers were came to thin and dispersed as same as DHA-S administration. Collagenase activity was increased and proline-hydroxylase activity was reduced after administration of relaxin as same as DHA-S respectively. These results suggested that relaxin has strong effects to dissolve the collagen and to mature the uterine cervix. But biological attitude of relaxin are still unknown, further studies are required.

122 Liver kininogen mRNA in pregnant spontaneously hypertensive rat and the effect of sodium intake. T.Shintani, H.Kitagawa, H.Kaneko, H.Suginami, S.Matsuura. Dept.Obstet/Gynecol., Ehime Univ.Sch.Med., Ehime.

Blood pressure (BP) patterns during pregnancy were measured in pregnant Wistar-Kyoto (WKY) and spontaneously hypertensive (SHR) rats. The production of kininogen (KG) mRNA was analyzed by blot hybridization in the liver of WKY and SHR; non-pregnant, ovariectomized/estrogen-primed, and pregnant. While BP did not change during pregnancy in WKY, in pregnant SHR, elevated BP of 170-180 mmHg decreased to 130-140 mmHg from Day 17 and thereafter. KG-mRNA production was lower in non-pregnant SHR than in non-pregnant WKY. However, pregnancy increased KG-mRNA production in both animal groups to the comparable levels. Excessive sodium intake increased KG-mRNA production in pregnant WKY but not in pregnant SHR. Estrogen stimulated KG-mRNA production in ovariectomized WKY. Pregnancy-induced hyperproduction of KG-mRNA indicates the contribution of kallikrein-kinin system to the control of hemodynamics during pregnancy. The facts that sodium intake did not additively increase KG-mRNA in pregnant SHR might suggest the limited capacity of KG-mRNA production in these animals. Discrepancy between BP pattern and KG-mRNA production in pregnant SHR might indicate disturbed kallikrein activity in these animals.

123 Changes of serotonin(5HT) metabolites and catecholamin(CA) metabolites for pregnant women -Changes at delivery-, T.Ogasawara, N.Adachi, M.Nishijima, I.Nishiya, Dept. Obst. and Gynec.,Iwate med. Univ., Iwate.

In order to clarify the correlation between catecholamine metabolites and indoleamine metabolites for pregnant women at delivery with a load of pyridoxal phosphate (PLP), we evaluate maternal venous blood before a load of PLP and that after load at delivery with multisensor cloumetric detection system (Neurochem). Result: 1) Plasma concentration of Pyridoxal (PAL) and 5HT at delivery were significantly higher than those of before injection. 2) Plasma PAL, Hydroxytryptophan (5HTP), 5HT, N-Methylserotonin, L-Dopa, Dopamine, Metanephrine, Caffeic acid, Methyltyramine, Methylhydroxyphenylglycol had no significant correlation between maternal venous blood before the load and those after the load at delivery. 3) At delivery, significant negative correlation was observed between plasma PAL concentration and plasma Homovanillic acid concentration. A negative correlation was observed between the difference of 5HT concentration and the difference of 5HTP concentration, before the injection with PLP and those at delivery. It was suggested that PLP supplement during delivery can change the interrelationships between Tryptophan and Tyrosin metabolic pathway.