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255 Endometrial-myometrial interaction in prostaglandins production. <u>H.Koike, H.Egawa, T.Ohtsuka, M.Yamaguchi, I.Miyakawa, N.Mori</u>, Dept.Obst.and Gyne., Miyazaki Med. Colle., Miyazaki.

Gyne., Miyazaki Med. Colle., Miyazaki. It is well known that endometrium produces mainly prostaglandin(PG)E₂ and PGF_{2d}, whereas myometrium produces PGI₂. Our recent experiment established that main product of adenomyosis was PGI₂. So, in order to investigate an endometrial-myometrial interaction in the PGs production, following experiment was done. Specimens were obtained from sexually active women undergoing hysterectomy for benign diseases. They were sliced about 0.2mm thick with wet weight of about 100mg each. Sliced endometrium and myometrium were incubated, separately or together, in 0.1M-Tris HCl buffer (pH 7.4, 37°C) for 2 hours. The incubation medium was replaced every 30 min. Each incubation medium was centrifuged at 500xg for 10 min and was frozen at -20°C until assay. PGs concentrations of incubation medium were assayed by direct RIA, and PGs production was expressed as pg/mg wet weight/min. 6-keto PGF_{1d} was increased when both tissues were incubated together, whereas there were no remarkable changes in the production of PGE₂, PGF_{2d} and TXB₂. An endometrial-myometrial interaction in PG production seemed to have important implication in relation to PGI₂ in pathogenesis of menorrhagia.

256 Treatment of uterine leiomyoma with danazol -Basal in vitro experiment by cell culture-. <u>H.Otsuka, K.Yoshida</u>, and <u>Y.Okamura</u>, Department of Obstetrics and Gynecology, School of Medicine, University of Occupational and Environmental Health, Fukuoka.

The effects of danazol on cultured cells derived from uterine leiomyoma were studied for each of 8 patients with uterine leiomyoma by using their resected uteruses. The cell growth was significantly suppressed in all 8 patients by danazol at a concentration of 10^{-5} mol/1, in 6 at 10^{-6} mol/1, in 4 at 10^{-7} mol/1, in 2 at 10^{-8} mol/1 and in 1 at 10^{-9} mol/1. In general, the cultured cells showed a tendency toward suppressed growth at 10^{-9} to 10^{-6} mol/1, but significant suppression of the cell growth was observed at 10^{-5} mol/1. Investigation of the relationships between the individual age, menstrual cycle, blood estradiol-17B level and site/size of the myoma and the inhibitory effect of danazol on the myoma-derived culture cells provided no characteristic findings. Thus, the in vitro experiment revealed an inhibitory effect of the drug on the cell growth, which was dose dependent, suggesting that danazol at high concentration is required for the drug to exert an inhibitory effect on uterine leiomyoma in vivo.

257 Effect of danazol on steroidogenesis in cultured human luteal cells. J.Shigematsu,S.Okamoto,T.Ishimaru,T.Yamabe, Dept.Obst.and Gynec.,Nagasaki Univ.Sch.Med.,Nagasaki.

The purpose of this study is to investigate the direct effect of danazol on the steroidogenesis of the corpus luteum. The luteal cells were dispersed with protease from a corpus luteum and cultured in $37\,^{\circ}$ C, $5\%CO_2$ in air for 10 days, in the presense and/or absence of danazol(10^{-7} Mol.), HMG (15IU) and testosterone(5×10^{-7} Mol.). Progesterone, pregnenolone and estradiol production in the culture media was determined using radioimmunoassays. Progesterone production of the cultured luteal cells was inhibited by danazol with and without HMG, however estradiol production was not affected by danazol. Pregnenolone production, the precursor of progesterone, was not affected by danazol whereas the production was stimulated by testosterone. These results suggested that danazol may affect the metabolism of progesterone rather than its production.