19 Influence of sex steroid hormones on production of plasminogen activator and its inhibitor in newly established human ovarian cancer cell line (TC1989) in vitro and invasive cell growth. M. Ueyama, M. Asakawa, S. Hirakawa, K. Momose, 1st Dept. Obst. and Gynec., Toho Univ. Sch. Med., Tokyo.

The effect of sex steroids on the production of plasminogen activators (PA) and the inhibitor-1 (PAI-1) of TC1989. The cells were cultured on the fibrin in the various medium conditions with the sex steroids and dexamethasone (Dx). The cell growth and its morphologic features were followed at time intervals. PA and PAI-1 antigen released into the conditioned medium were measured by EIA method. In the presence of tranexamate the cells were well proliferated on the fibrin and no cell aggregation were observed. In the case of sex steroids, no spreading cells on the fibrin were seen because of severe fibrinolytic activity. u-PA production was increased about 200 folds of t-PA concentration in above cases. PAI-1 synthesis were enhanced by Dx. The cells should be supported on stable fibrin substrate for their growth, but its development would be inhibited by encapsulation of fibrin on the other hand. The balance of PA and PAI-1 production appeared to be one of the factors for inhibition of the growth of anchorage dependent tumor cells.

21 Significance of thrombin・antithrombin III complex and plasmin・α_2 plasmin inhibitor complex in gynecological cancer. K.Soga, S.Igarashi, J.Higuchi, M.Maki, Y.Motoyama*, T.Sasaki*, Dept.Obst.and Gynec.,Akita Univ. Sch.Med.,Akita, *Dept.Obst.and Gynec., Kakunodate Hosp., Akita.

We measured thrombin・antithrombin III complex (TAT) and plasmin・α_2 plasmin complex(PIC) in the plasma obtained from the patients with gynecological malignancy, and evaluated the coagulation/fibrinolytic system. Examined cases was 42 of cervical cancer, 37 of endometrial cancer, 8 of ovarian cancer, 42 of normal pregnant women and 15 of normal non pregnant controls.
Normal value of TAT is 1.71±0.19 (Mean±SE)μg/l. Patients with malignancy such as Ib stage of cervical cancer(6.83±8.72), II-IV stage of endometrial cancer (7.01±1.05) has a tendancy to high TAT value.
Normal value of PIC is 0.30±0.5 (Mean±SE)μg/ml.
PIC is significantly in high level in every stage of malignancy.
Fibrinolysis is increased in gynecological cancer, compared to normal controls, so PIC is useful to detect fibrinolysis of every stage of malignancy.

22 Establishment and characterization of a new mixed mesodermaal tumor cell lines of human uterus. I.Gorai, T.Yanagibashi, H.Minaguchi, Dept. Obst. and Gynec, Yokohama City Univ. Sch. Med., Kanagawa.

A new human uterine cell line, EMTOKA, derived from a mixed mesodermal tumor of the uterus of a 64-year-old woman has been passed successfully in cell culture for more than a year. The pathological examination of the surgical specimen revealed papillary adenocarcinoma (ad-ca), tubular ad-ca, spindle fibers and chondrosarcoma. The cell line grew well without interruption and was subcultivated more than 36 times. The cells showed a cell-to-cell variablity and at least four cell types which included spindle or polygonal, papillary, macrophage like giant, and fibroblast types without contact inhibition. Immunohistochemical study demonstrated that EMTOKA cells were vimentin- and cytokeratin-positive and desmin- and EMA-negative. The cells have a log phase doubling time of about 66 hours. The chromosome number varied widely and showed triploidy and tetraploidy. The cells transplanted into nude mice produced tumors and histological examination revealed the same components as the original tumor. The cells secreted tumor markers, CA199, SLA, CA125 and TPA, into the culture media. Three of 38 clonal lines obtained showed the same cell-to-cell diversity as the parent line and retained the same four cell types and staining pattern of vimentin and cytokeratin.