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547 The mechunisms of CTL generation to gynecology cancer cells with PBL. M.Hirokawa,M.Ohno,K.Fujita,T.Igarashi,A.Shiota,T.Sasaki,T.Kurose,T.Hando, Department of Perinato-Gynecology,Kagawa Med.Sch.,Kagawa.

Recently, adoptive immunotherapy has been attempted in gynecological cancer by IVSL and tumor-infiltrating lymphocytes. Then, in vitro, we analyzed anti-tumor effect and the mechanisms of CTL generation to self cancer cells in various condition with PBL and self cancer cells. Material and method, 1,PBL and self cancer cells were co-cultured in 2ml CM for 3 days, following, these cells were co-cultured in 200U/ml of IL-2, [Responder/stimulateor(R/S):10,30,100]. Cytotoxicity was analyzed with ^{51}Cr release assay, [Effector/Target(E/T);10,30,100]. And then, we examined wheather cytotoxicity was suppressed by anti-OKT3 antiboday and anti-OKT8 antiboday. 2)PBL was applied in nyron wool. These PBL and self cancer cells were co-cultured in 200ml of CM. Then cytotoxicity was analyzed.
Result, 1)Cytotoxicity of IVSL depended not large and small of R/S but E/T. 2)Subset of effector cells was $CD3^{+}CD8^{+}$. 3)This result was suggested that monocyte of PBL relationed with the CTL generation to self cancer cells.

548 Effects of antineoplastic prostaglandins on immune system. T.Kita,Y.Kikuchi,M.Miyauchi,J.Hirata,I.Nagata, Dept.Obst.and Gynec.,Natl.Defense Med. Coll.,Saitama.

Antineoplastic prostaglandins(PGs) used in this study inhibited proliferation of human ovarian cancer cell(HR cell) in vitro in a dose dependent manner. Δ^{7}-PGA1,Δ^{12}-PGJ2,PGJ2 and PGD2 indicated the IC_{50} of 0.55,0.90,1.36 and 2.40μg/ml,respectively. Mitogen response of human peripheral blood lymphocytes(PBL) to phytohemagglutinin(PHA) was stimulated in a dose dependent manner between 10^{-6} and 10^{-8}M of all PGs. These stimulation effects of PGs on PHA response were increased by pre-incubation of PBL with PHA and same stimulation effects were observed remarkably in fresh PBL than in freezed PBL. In addition, we examined effects of PGs on ability to lyse HR cells by PBL or spleen cells of nude mice. All PGs used did not stimulate lytic activily to HR cells by PBL in the presense or in the absense of PHA. But some of PGs examined stimulated lytic activity of spleen cells from nude mice bearing HR tumor. These results suggest that antineoplastic PGs might inhibit the HR cell proliferation directory in vitro or indirectory in vivo through immune system except NK activity. Therefore, antineoplastic PGs might be expected to act as biological response modifiers in management of gynecologic malignancies.

549 Use of variable number of tandem repeat marker for the screening of polygene abnormality in congenital malformations. G.Saito, K.Iwasaki, A.Fujii, T.Moriuchi*. Dept. Obst. and Gynec., *Dept. Cell Biol., Tokai University School of Medicine. Isehara Kanagawa.

High molecular weight DNAs were purified from the placentas or autopsied tissues of severe congenital malformations. Fifteen DNA samples were examined for the abnormal restriction fragments by Southern blot analysis using cDNAs for DNA polymerase-α, DNA polymerase-β and DNA polymerase-δ auxiliary protein (PCNA) as probes. The DNA samples were digested with 10 restriction endonucleases. In one case of congenital malformations, the 3 probes detected abnormal restriction fragments in the DNA digests of 3-5 restriction enzymes, respectively. All abnormal bands were seen heterozygously. Clinical examination of the patient (MY) revealed microcephalia, urogenital anomaly, arthrogryposis and scoliosis. In the other 14 DNA samples, no abnormal bands were detected. On the assamption that variable number of tandem repeat (VNTR) sequence may encode hotspots for recombinational activity and be involved in the genesis of polygene abnormality, we used VNTR marker (pYNH24) for the screening of polygene abnormality in congenital malformations. The pYNH24 probe successfully detected abnormal bands in the DNA sample from case MY.

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