298 Study of c-myc,c-hst,cfgr and c-ros-1 oncogenes amplification or rearrangement in human ovarian carcinomas. Y.Tomioka,Y.Ishii,H.Ogura, H.Tajima,S.Iida,K.Ogura,H.Sakuma,T.Yoshinari,S.Kondoh,T.Hata, Dept. Obst. and Gynec.,Saitama Medical School,Saitama.

Genetic rearrangement,gene amplification and mutation of cellular oncogenes play an important role in the development and progression of malignancies. Very few of these alterations have been described in ovarian carcinomas. Itmay be useful to detect the frequency of alteration of proto-oncogenes in ovarian carcinomas. (Method:)High molecular weight genomic DNAs was isolated from two ovarian adenocarcinomas cell line, SMG-1 and SHIN-3, and seven samples by surgical excision from ovarian adenocarcinomas. We examined the c-myc,c-hst,c-ros-1 and c-fgr oncogenes gene amplification or genetic rearrangement using Southern blot hybridization techniques. (Results:)One of ovarian carcinoma has 8 hold of c-myc gene amplification and 3 hold of c-hst oncogene amplification. Two of ovarian carcinomas have 5-6 hold of c-fgr oncogene amplification. Other four samples have no modification. We found no evidence of genetic modification of c-ros (Conclusion:)These results indicate that c-hst,c-fgr and c-myc oncogenes alterraions are thus frequent in ovarian carcinomas. It may be necessary to wxamine these mutations more in detail for a better treatment improvement

299 p53 gene and ras oncogene expressions in human ovarian cancers. S.Sagae, R.Kudo, Y.Mugikura, T.Okazaki, T.Nihei, T.Takeda, K.Terasawa, S.Takashima, S.Ishioka, M.Hashimoto, Dept.Obst.Gynec.,Sapporo Medical College,Hokkaido.

p53 was initially reported to be a dominant transforming oncogene, but it now seems to be a tumor suppressor gene. In order to elucidate the role of p53 gene expression in ovarian cancer, immunohistochemical evaluation of 80 specimens from primary ovarian cancer patients with anti-p53 mouse monoclonal antibody (MAb) PAb1801 (OSI,co.,USA) was performed comparing it to the positivity of anti-ras p21 mouse MAb rp35. p53 positive cases showed better prognosis but ras-p21 positive cases tended to have worse prognosis. p53 positive cases showed up in the early stage of ovarian cancer. According to the histological type and tumor grade, mucinous tumors and well differentiated tumors revealed a much higher percentage of p53 positivity and showed nuclear and cytoplasmic staining of p53. However, ras-p21 staining showed no correlation with clinical stage, histological type nor tumor grade on our series. We suggest that p53 may be a parameter to evaluate the cellular biology and prognosis of ovarian cancer.

300 Flow Cytometric Analysis of Cellular DNA Content in Epithelial Ovarian Cancer. H. Arai[1], S. Izumi[2], M. Mikami[1], C.S.Lai[1], M. Sakai[1], K. Itakura[2], M. Yano[2], K. Yamaoka[2].

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Tumor DNA content (ploidy) was determined by flowcytometry (FCM) on tissue from 32 epithelial ovarian cancer patients. Staining for DNA analysis was achieved with Propidium Iodide. Peripheral blood lymphocytes were used as reference diploid cell population.

Of the 32 patients, 26 (81.3%) had tumors which were aneuploid, whereas 6 (18.7%) had diploid.

The results in each histologic type of epithelial ovarian cancer were as follows, DNA aneuploid cell lines were found in 100% of serous cystadenocarcinoma, in 57% of mucinous cystadenocarcinoma, in 67% of endometrioid adenocarcinoma, in 88% of clear cell carcinoma and in 75% of undifferentiated carcinoma.

Thus the DNA ploidy abnormalities were different in each histologic characteristics of epithelial ovarian cancer.