

28 Growth potential examined by the monoclonal antibody Ki-67 in cervical cancer and its relation to the clinical stage, histological type and the effects of irradiation. T.Masuda, H.Yabushita, S.Nozaiki, K.Sawaguchi, M.Noguchi, M.Nakanishi, Dept.obst.and Gynec., Aichi Med.Univ., Aichi

To assess the growth potential of cervical cancer, the population of cells in proliferating cycle (P.C.) was examined by immunohistochemical technique using the monoclonal antibody Ki-67. The percentage of P.C. was  $32.61 \pm 18.79\%$  in 24 cervical cancers,  $7.94 \pm 3.89\%$  in 22 normal ectocervical portion. The population of cells in P.C. of cervical cancer was higher than that of normal ectocervical portion, and it increased in accordance with progression of the clinical stage. However, the population of P.C. had no difference among the histological types. In 7 cervical cancers, all of the elevated population of cells in P.C. decreased in accordance with the effect of irradiation. In cervical cancers, the population of cells in P.C. was higher in DNA aneuploid group than in DNA diploid group and had a significant correlation with DNA index. The above results indicate that the population of cell in P.C. can be used as examination for growth activity in cervical cancer and become possible to predict the biological behavior of cancer cells.

29 Analysis of EGF-receptors and effects of EGF on growth of cancer cell lines originating from female genital organs. J.MA, N.USUI, Y.FURUGEN, R.MIYAZAKI, M.SUZUKI, M.TAKADA. Dept. Obst. and Gynec., Juntendo Univ. Sch. Med., Tokyo.

In this paper we analyzed EGF-receptors in cancer cell lines originating from female genital organs, and we studied the effects of EGF on growth.

The theoretical maximum number of binding sites of SKGIIIa, RMUG-s, HUOA, A431, and HEC was  $1.22 \times 10^4$ ,  $6.94 \times 10^4$ ,  $2.75 \times 10^4$ ,  $5.25 \times 10^5$ , and  $0.92 \times 10^4$ , respectively. Cell growth of A431 was inhibited starting at a concentration of 0.01nM of EGF and it was inhibited in other cell lines from concentrations of 1nM and above, but no uniform tendency was observed between the inhibition rate of each cell line and the number of EGF receptors. When CDDP and EGF were used in combination, the cell growth inhibition rate was observed to be more strongly reinforced even at EGF concentrations promoting cell growth than when CDDP was added alone.

The possibility was suggested that EGF acts as a biochemical modulator on the manifestation of effect in vitro of such anticancer agents, as CDDP etc.

30 Immunohistochemical study of the mucosal immune response in persistent dysplasia of the uterine cervix. K.Fukuda, T.Hachisuga, H.Sugimori, Dept. Obst. and Gynec., Saga Medical School, Saga

To study the mucosal immune response of persistent dysplasia, formalin-fixed paraffin-embedded tissue sections were obtained from the initial diagnostic biopsies. They were taken from 89 patients followed-up more than 1 year at Saga Medical School between 1986 and 1990. All sections were studied by immunohistochemical technique (ABC method) using anti-S100 protein antibody. There was no difference between 48 dysplasia regressed within 1 year and 41 dysplasia that were persistent more than 1 year in the intraepithelial S100 positive median cell density, but there was statistically significant difference between them in the S100 positive cell density of submucosal connective tissue. S100 positive cells represent the subpopulation of Langerhans cells that play an important role in the process of T cell activation associated with cell-mediated immune response. High incidence rate of depletion of S100 positive cells in submucosal connective tissue may reflect a poor local immune response in persistent dysplasia. Depressed systemic immune response (pregnancy, steroid therapy, depression) also revealed a poor local immune response.