361 N-myc gene amplification in germ cell tumor cell strains.
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The occurrence of N-myc gene amplification in neuroblastomas attracts attention because of its proven close relationship with tumor malignancy. Immature neural components are often included in immature teratoma, and several reports suggest that the immatuarity of teratoma and its prognosis are in good agreement. Therefore, we investigated the relationship between N-myc gene amplification, ability to produce neuron specific enolase (NSE) and the presence of double minute chromosomes (DMs) in 15 germ cell tumor cell lines/strains from 3 cases of immature teratoma, 5 cases of dermoid cyst, 5 cases of mature teratoma, 1 case of dysgerminoma and 1 case of endodermal sinus tumor. It was revealed as a result that N-myc gene amplification and NSE production were recognized in all the 3 cases of immature teratoma containing immature neural tissues and the endodermal sinus tumor; DMs were recognized in two out of the three cases of immature teratoma. In all cases of the dermoid cyst, mature teratoma and the single case of dysgerminoma, no N-myc gene amplification, NSE production and DMs were recognized. From our experiments, then, it may be concluded: a more comprehensive examination is necessary in the case of immature teratoma with regard to the presence of N-myc gene amplification, NSE productivity, presence of DMs etc., as the tumors contain immature neural tissues.

362 Studies on ras oncogene activation in gynecologic neoplasia.
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Amplification, pointmutation and RFLP of oncogenes were studied for 18 cases with gynecologic neoplasms including 14 endometrial carcinomas, 3 ovarian carcinomas and 1 cervical adenocarcinoma. C-myc, erb-B, erb-B-2, K.N. H-ras were all negative for amplification. However, one of each ovarian and endometrial carcinoma showed pointmutation at codon 12 of K-ras gene. It was noteworthy that the case of endometrial carcinoma with ras oncogene point mutation was that developed pelvic lymphnode metastasis inspite of superficial myometrial invasion. Ras oncogene point mutation can be a clue of prognosis.

363 An approach to new cancer therapy—differentiation therapy—
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A pluripotent human EC cell line, NEC 14, could be induced to morphologically differentiate by in vitro treatment with 10^{-2} M hexamethylene bisacetamide for 3 days. The expression of HLA-A, B, C antigens was induced after differentiation. Both SSEA-3 and human Thy-1 antigens were definitely expressed in the NEC 14 cells but the expression of both antigens diminished after differentiation. In contrast, SSEA-1 antigen was expressed after differentiation. Only keratin was positive in the NEC 14 cells. All of 4 intermediate filaments (keratin, vimentin, desmin and GFAP) became positive after differentiation. Production of tenascin, a extracellular matrix protein, was induced after differentiation. Markers for extraembryonic elements such as human chorionic gonadotropin and alpha-fetoprotein did not change after differentiation. These results indicate that NEC 14 cells are induced to differentiate particularly mesodermal mesenchymal element by the treatment with HMBA in vitro.