

after the free type was adsorbed by dextran coated charcoal.

Results: Change of p. receptor was noticed in 8s of the functional layer. It became more pronounced in the proliferative phase, showed a peak in the late proliferative phase, suddenly decreased after the middle secretory phase. In the differentiated types of corpus cancer and cervical adenocarcinoma, the receptor showed $K_d=3.8-7.6 \times 10^{-9}M$, and the amount of 8s was 0.012-0.120 p moles/mg protein. In decidua, however, 8s could not be counted.

Discussion: The above shows that physiologically p. receptor is 8s in the functional layer in normal endometrium and that 8s is thought to disappear by decidualization. Though 8s decreases as endometrium becomes atypical, it has histologically differentiated types in endometrial cancer and cervical adenocarcinoma and does not remarkably decrease in differentiated type after administration of p..

22. Mitosis and DNA Ploidy Changes of Endometrial Carcinoma Cells by the Influence of Gestogens

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A clinical study on 22 cases of endometrial carcinoma was conducted by oral administration of gestogens. The fluctuations of Mitosis Index (MI) before and after administration, histological changes especially secretory reactions and changes of nuclear DNA ploidy were examined with the following results;

1) In 5 cases of differentiated carcinoma showing subnuclear vacuoles reaction (SV positive) by gestogens a remarkable decrease in MI was seen. In other words at one week after a 60-40% rapid decrease of MI compared with one week before was noted followed by a gradual decrease to 55-35% at 2 weeks after. In such cases a reduction of DNA content to a diploid/tetraploid range was seen.

2) In contrast, in undifferentiated carcinoma which did not show any secretory reactions by gestogens (SV negative) hardly any changes in MI were seen and also over a wide range of DNA content no changes were seen. However, among the differentiated carcinomas, and especially in a case which showed a 70% MI decrease a slight change in

DNA content was noted.

3) Likewise in SV negative cases, when a MI decrease is seen by gestogens to a similar degree in MI distribution of SV positive, a remarkable change in DNA ploidy was seen.

23. Studies on Transplanted Human Endometrial Carcinoma in Nude Mice

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The pleomorphism of cancer cells are also recognized histologically and ultrastructurally in uterine endometrial carcinoma. The purpose of this study was aimed to clarify the relationship between morphological grade of differentiation and hormone reactivity human endometrial carcinoma using transplanted nude mice.

15 cases of endometrial carcinoma (diff. 15, intermediate, 1, poorly diff. 1) were transplanted subcutaneously to athymic nude mice. Following direct inoculation of tumor tissues, average percentage of initial transplantability was 36% (26/71). Among 15 cases, 3 tumors were secondarily transplantable.

ad-5 is poorly differentiated adenocarcinoma which arose in the corpus uteri of 52-years old house wife operated in april 1976. Originally, most of this tumor was consisted of solid nests of ovoid cells with large atypical nuclei with partial glandular structures. Following initial transplantation, ad-5 tumor is divided into 2 types of histology, one is rapid growing poorly differentiated type which maintains the same histological feature as original tissue, one is slow growing, well differentiated adenocarcinoma with typical glandular structure in fewer mice.

The latter was probed the existence of specific binding protein (receptor) for 3H -estradiol by dextran coated charcoal (DCC) method. The rapid growing ad-5 tumor is serially transplantable in almost 100% of more than 103 of nude mice during passage of 7 transplant generations. The tumor becomes palpable in seven days and grows 2 cm in diameter in four weeks. Intermediate type of