

### 193. Culture of Human Ovarian Granulosa -Theca Cell Tumors—Steroid Hormone -Secreting Tumors

C. ISHIWATA and I. ISHIWATA

*Ishiwata Obst. & Gynec. Hosp., Ibaraki*

The ovarian granulosa-theca cell tumors have been of interest to us as hormone-producing or functioning tumor. Recently, we had opportunity to obtain these tumors from 78-year-old and 74-year-old females. We therefore cultured these tumors in order to clarify its biological characteristics such as growth behaviour, morphology, genetics and particularly the activity of hormone-producing.

The cultured cells of theca cell tumors (HKOT derived from 78-year-old female, HTOG-Y derived from 74-year-old female) were spindle or fibrous in shape and showed a stable growth for about 100 days and secrete primarily estrone and estradiol rather than testosterone. The cultured cells of granulosa cell tumor (HTOG-B) derived from 74-year-old female were spindle or polygonal in shape and showed such neoplastic and pleomorphic features as coarse granular chromatin and multinucleation and secrete estrone and estradiol. The HTOG-B cells grew well without interruption, was passed more than 23 times within 10 months and continue to be stable growth.

### 194. Study on Characteristics of Germ Cell Origin Ovarian Tumor Transplanted in Nude Mice

R. NAGO, H. TOKITA and N. TANAKA

*Chiba Cancer Center Research  
Institute, Chiba*

H. ISHIGE and T. KATOH

*Dept. Obst. & Gynec.,  
Chiba Univ. Sch. Med., Chiba*

We succeeded in serial transplantations of ovarian choriocarcinoma into nude mice. The characteristics of this ovarian choriocarcinoma, IMA, were studied in macroscopic findings, histological findings, ultrastructural findings, growth curve, HCG secretion, LDH activity, alkaline phosphatase activity, and sensitivity for some antineoplastic agents. Some of them were compared with those of HM and JCK, gestational choriocarcinomas.

Grossly, IMA was of dark and soft type with a great deal of necrosis and hemorrhage. Microscopically,

cytotrophoblasts were dominant and nucleoli were prominent in IMA. Ultrastructurally, IMA cells had large nuclei and prominent nucleoli. The cytoplasm contained abundant glycogen granules and free ribosomes. The growth was very rapid and the doubling time was  $2.4 \pm 0.6$  days. The amount of HCG in the tissue of IMA bearing 1 gram of tumor, were 14,700 (IU/g.pro.), 177.1 (IU/g.pro.), and 99.5 (IU/g.pro.), respectively. On the other hand, the levels of LDH and alkaline phosphatase of IMA were lower than those of JCK and HM. We evaluated the efficacy of four antineoplastic agents (MTX, ACD, CPM, and VCR) with nude mice and found out that the effective agents are VCR for IMA, VCR and CPM for JCK, and none for HM, respectively.

### 195. A Trial of Combined Method Con- sidered with Recidual Cancer Cells in the Treatment of Ovarian Cancer

K. HIRABAYASHI, E. OKADA, Y. NAKAZUMA  
and Y. LIN

*Dept. Obst. & Gynec.,  
Fukuyama National Hosp., Hiroshima*

It is an established opinion that the aggressive surgical excision is the best way for improvement of prognosis. The opinion itself suggests conversely that the case with less residual cancer has better prognosis. Based on this simple fact, a therapeutic trial has been performed on 42 cases of ovarian cancer. In Stage I and II cases, cancer are nearly 100% excluded by the operation. Residual cancer are supposed to be microscopical, but to be scattered widely in abdominal cavity. On such cases, intraperitoneal chemotherapeutic perfusion method previously mentioned has been applied on 16 cases with better results, conversely with relatively poor results in II cases of Stage III. It would be concluded that this method is effective in cases of Stage I and II. In cases of Stage III, IV and recurrence, Cisplatin administration showed remarkable regress of tumor volume in 9 cases out of 15 cases. Therefore, on such cases, Cisplatin followed by aggressive surgery and IPCP method would be a suitable method.

### 196. Detection of Possible Tumor Markers for Ovarian Malignancy

I. KIZAWA, Y. KIKUCHI and K. KATO

*Dept. Obst. & Gynec.,  
National Defense Med. College, Saitama*