I S—49

DNA Gains and Losses in Primary Ovarian Carcinomas by Comparative Genomic Hybridization- A Preliminary Report

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Many studies have reported p53 mutation, amplification of K-ras, c-myc, and other chromosomal gains and losses in human ovarian carcinomas. CGH(comparative genomic hybridization) is widely used to screen chromosomal changes in carcinomas and can pinpoint the molecular carcinogenesis. In this study, CGH was performed to evaluate chromosomal changes in human ovarian carcinomas from paraffin-embedded tissue blocks.

DNA was extracted from 6 cases of specimen diagnosed histopathologically as 3 cases of serous adenocarcinoma, 1 case of mucinous adenocarcinoma, 1 case of clear cell carcinoma, and 1 case of endometrioid adenocarcinoma.

CGH was performed according to the protocol by Kalliomi et al(1994) with minor modification. For image acquisition, an epifluorescence microscope(Axioplan, Zeiss, Germany) equipped with a cooled CCD camera(Photometrics) controlled by an image analysis system(Smart Capture V2.1, Digital Scientific, Cambridge, UK) was used.

In sereous adenocarcinomas staged Ia-Grade 1, Ib-Grade3, and IIIc-grade 3, chromosomal gain was detected in chromosome 3q21-qter, 3q13.2-24, 8q22.2-24.2, and 12p, whereas chromosomal loss was detected in chromosome X q11-21.2, 15p, 17p, 17q, 8p, 13q, 13p, 21p, 11p14-pter. In mucinous adenocarcinoma staged Ia-Grade 2, chromosomal gain was detected in chromosome 10q22-ter, 10p12-14, 22q12-13, Xq27 and chromosomal loss was detected in chromsomal 13p1 and 21p. In clear cell adenocarcinoma staged Ia-Grade 1, chromosomal gain was detected in chromosome 2q22-q32, 3q24-26, 7q21-q35, 8q22.2-q24.2, 12 p, 14q21-23, 15q14-21, and 19q13 and loss was detected in chromosome 4, 6q, 17q, 10p, 16, 9, 22, 13q13-qter, and 5 q13-14. In endometrioid carcinoma staged Ic-Grade1, chromosome gain was detected in chromosome 8p22-pter, 12 pter and loss was detected in chromosome 13p, 14p, 15p, 21p, 22p, 9q11-21.

Our results have shown many chromosomal alterations in human ovarian carcinomas and can be useful data for screening chromosomal changes and molecular mechanism of human ovarian carcinogenesis.

I S—50

Comparison of Laparoscopic Myomectomy and Laparotomic Myomectomy

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Myomas seem to be the most common uterine neoplasm. Described since 1931 by Bonney as the gold standard for conservative pelvic surgery, myomectomy is advisable for women who wish to preserve their childbearing potential. Until recently, the main approach in patients with myomas who wished to retain the uterus was laparotomy, regardless of fertility status. However, due to recent advances in endoscopic surgery considerable cases of laparotomic myomectomies have been replacing by laparoscopic myomectomies. The purpose of this study is to compare clinical outcomes in patients underwent myomectomy by laparoscopy and laparotomy.

We reviewed forty-two laparoscopic myomectomies (mean age, 35.1 ± 4.6 years) and thirty-six laparotomic myomectomies (mean age, 32.2 ± 3.9 years) from Apr 1994 and Dec 1997. The mean size of the dominant myomas was 6.8 ± 2.2 cm in laparoscopy group and 7.4 ± 3.4 cm in laparotomy group. Mean operating time for laparoscopic myomectomies was 150.5 ± 57.4 minutes (45-315 min) versus 114.0 ± 42.5 minutes (45-255 min) for laparotomies. The length of hospitalization was 2.6 days and 5.7 days for laparoscopy group and laparotomy group, respectively. The mean postoperation-1 day hemoglobin loss was 1.84 g/dl and 1.78 g/dl for laparoscopy group and laparotomy group, respectively. But 2 patients in the laparotomic group required postoperative transfusion.

In conclusion, laparoscopic myomectomy is recommended for the selected cases according to the size, location and number of myomas with the benefits of rapid recovery, shorter hospitalization and earlier return to normal activities.