

- 421 An application of new KTP/YAG laser in gynecological fields. T.Izumi, K.Wakita, H.Kuramoto, N.Sasaki, R.Nemoto, T.Jobo, and M. Nishijima Dept. Obst.and Gynec.Kitasato Univ.Sch.Med., Kanagawa

A fundamental and a clinical studies with KTP/YAG laser were performed. The new KTP/YAG Surgical Laser system from Laserscope provides two fiberoptic deliverable wavelength, KTP/532 and YAG/1064 nm. In fundamental study, the effect of KTP laser were examined histologically on H.E. stained specimens of ectocervical, endocervical and endometrial areas of the resected uterus to which the laser were irradiated at the conditions of a 3mm spot size and 15-60 joules. The relation between irradiation energy (joules) and the laser penetration on every area was considered to be significant such as $Y=1.8+0.03X$ ($P<0.001$) on squamous area. Twenty six with CIN, 1 with questionable early cervical cancer, 1 with cervicitis, 9 with condyloma acuminatum (8; vulva, 1; cervix), 10 with cervical polyp, 3 with endocervical myoma and 2 with benign vulvar tumor were treated at an outpatient basis under local anesthesia. Each laser was irradiated in contact or in non-contact with tissue with a hand piece at output power of 10 to 20 watts. Excellent results were obtained and side effects were minimum. In conclusion KTP/YAG laser is suggested to be a good tool for the treatment of lower genital tract disease.

- 422 Comparison of cryosurgery and carbon dioxide laser therapy for CIN. Yoshinori Nakata, Kiyoyuki Harada, Toshio Yamada, Hideko Tamura, Miyuki Saeki, Masakazu Yokozei, Kyoto First Red Cross Hospital, Department of Obstetrics and Gynecology.

Cryotherapy and laser vaporization or conization therapy attempt to eradicate cervical intraepithelial neoplasia (CIN). In this study 31 patient with persistent abnormal PAP smears suggesting CIN were treated by cryosurgery during the period Apr., 1986 to Sept., 1989. Included in the 31 patients were 15 with IIIa, 13 with IIIb, and 3 with IV PAP smear. Duration of cytology negative in cured group with cryosurgery were 2.3 ± 1.2 months in IIIa, 3.1 ± 1.5 in IIIb, 5.0 in IV. The persistence rate of abnormal cytologic finding at 6 month after treatment was 13% for IIIa, 38% for IIIb and 67% for IV. Failures rate at more than one year was 29%. To date, two patients who had initial cryosurgery subsequently returned with a clinical CIS and microinvasive ca. at 5~19 months follow-up. From Oct., 1989 the carbon dioxide laser has been the use of treatment of 35 patients with CIN. 23 patients were treated with vaporization and 83% of these were successfully treated at 6 month and all patients were cured of disease with retreatment. Twelve patients with CIN III or more disease were applied by laser conization and one patient has persistent positive cytology after treatment. Review of the records of 31 initial cryosurgery as compared to those of 23 laser vaporization revealed failure rate of 29% and 17% respectively.

- 423 Perineo-ano-vulvectomy with lymphadenectomy and colostomy for carcinoma of the vulva. E. Shirai, S. Suzuki, Department of Gynecology, Ida Municipal Hospital, Kawasaki, Kanagawa.

A method is presented for removal of the vulva, anus, and distal rectum by the perineal approach with lymph adenectomy and sigmoid colostomy. A 73 years old female patient severely suffered from the invasive squamous vulvar carcinoma involving the anal canal was treated by this method. This method is aimed to remove more tumor and to lessen the operative distress as much as possible in poor prognostic patients.