the cervix are effective to make a correct pre-operative diagnosis of CIS and Ia stage of cervical cancer.

## 9. A Peripheral Monocytic Effect in Patients with Cervical Carcinoma Following Radio- and Immunopotentiation Therapy

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Activation of the monocyte-macrophage system is the principal mechanism underlying host defense, immune response with lymphocytic interaction and defense against spontaneous arising tumors. In view of these fact, we investigated effects of radio- and immunopotentiation therapy (OK432) on the following processes in patients of stage III and IV cervical carcinoma.

- 1) Number of monocytes determined by naphtyl butyrate esterase and right staining.
- 2) The rate of glucose utilization assessed by Ficoll-Hypaque density gradient separation.

Comparison was made among patients all received radio- and chemotherapies, with and without subsequent immunopotentiation therapy. In healthy female individuals, the number of peripheral monocytes determined by esterase staining was 338.5  $\pm$  52.6/ $\mu$ l. Thus, immunopotentiation recovered the monocyte count, as long as the dose of OK432 was less than 8KE (679.3  $\pm$  78.5/ $\mu$ l).

The difference was also found in the glucose utilization by monocytes in radio- and chemotherapies, the utilization rate was small (98.2  $\pm$  1.3%), whereas it was much grater in immunopotentiation therapy (82.6  $\pm$  3.2%).

These collectively indicate that the immunopotentiation therapy by OK432 results in monospecific activation of macrophage which will be evaluated as an indicator of cancer immunotherapy and will be also effective for the combined immunochemotherapies.

## 10. Photoirradiation Therapy Following Administration of HpD for Gynecologic Malignant Tumors —Especially Treatment for Vaginal Carcinoma and CIS—

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In this report, laser photoirradiation with administration of hematoporphyrin derivatives (HpD) 2.5 mg/kg was performed two or three times in 13 patients with carcinoma (5 patients CIS, 3 patients Vaginal carcinoma 2 patients Vulva carcinoma 3 patients the other). Using red light from an argon laser source, the laser beam is transmitted via a specific colposcopic apparatus including a fiber quartz which is placed 1.0-2.0 cm away from the lesion. Irradiation time was 20-40 minutes at laser out put of 250 to 1200 mW/cm<sup>2</sup>. After laser photoirradiation therapy, tumor cells are disappeared compleately in 9 patients and tumor cells degenerated in 3 patients. Laser photoirradiation therapy was effective for squamous cell carcinoma as well as adenocarcinoma. No major complications were observed. 3 patients were survival 2 years after laser photoirradiation therapy with no relapus of carcinoma. Photoirradiation with administration of HpD may be useful method for treating Vaginal carcinoma and Vaginal stump carcinoma.

## 11. The Controversal Point in Treatment of the Aged Cervical Cancer

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Recently, according to an increase in older population, the frequency of the aged cervical cancer is showing increasing tendency. The purpose of this study is to establish a system for early detection of the aged cervical cancer and adequate therapeutic method for them.

291 patient of cervical cancer over 65 years were initially treated in our clinic during period of 1955 to 1981. During 1975 to 1981, the ratios of the aged cervical cancer for all patients were 15.2% (58/382) and compared with previous finding shows significantly increased trend.

The five year survival rate of aged cervical cancer treated in our clinic untill 1974 were 55% (20/36) for stage II, 34.7% (26/75) for stage III and gives 15% decreasing trends for all patients.

On investigation, it was found that aged cervical cancer patients received treatment did not come for follow up in hospital very few cases turn up for follow up making a mean of 0.8 times in a year.