

# *Some Factors influencing the Prognosis of Radical Operation for Uterine Cervical Cancer*

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之講辭特予刊載

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President Tsai, Members of the Association and Guests:

I deem it a great honor indeed to have been accorded the privilege of addressing you to-day about the factors influencing the prognosis of radical operation for uterine cervical cancer. Although chemotherapy has made steady progress, radical surgery and irradiation still remain the two major procedures for the treatment of uterine cervical cancer. I have been engaged in radical surgery since 1946. I operate on Stage I and Stage II cases except in the cases where there are medical contraindication, and where patient refuses, and a small proportion of Stage III and IV cases with excellent general condition and very limited infiltration of the pelvic girdle thus still rendering the tumor a considerable mobility.

First of all, I should say the key to an excellent result is completeness of operation. The principle of radical operation should be the removal of the primary tumor en masse and regional lymphadenectomy. However, the extensiveness of surgery necessarily results in isolation of the ureter in length of about 5-8 cm. and also in a large dead space with serosanguinous fluid accumulation and/or abscess, thus giving rise to ureter fistulae formation. This will greatly decrease the kidney function and the vitality of the patient and thus the five year survival rate. Paracoccygeal drainage adopted by us has successfully reduced the incidence of dead space abscess and ureter fistulae formation. The details are described in my previous papers in your possession.

Since completeness of the operation is the important and basic factor for an excellent survival rate, the operation should be carried out by a well qualified competent pelvic surgeon. Lymphadenectomy, particularly thorough and complete lymphadenectomy, can cause frequent injury to the complicated pelvic vascular system resulting in fatal hemorrhage. The Vth World Congress of I.F.O.G. held in Sydney last September has decided to set up a special committee to screen well-qualified pelvic surgeons in the world and to set up several training centers in the world. Prof. Lauros has been appointed the chairman of the committee and he has started his work. I have recently received many of his questionnaires.

The other factor affecting the survival rate is the extent of the spread of the disease. To save time. I have distributed among you a copy of my previous paper appearing in the American Journal of Obstetrics and Gynecology, 1963. In this paper, a very important conclusion was drawn from Table III, i.e., although parametrial infiltration only, or pelvic nodes metastases only, more particularly the latter, has unfavorably influenced the 5 year survival rate, each of them still has a fairly good 5 year survival rate, however, when the two factors are combined, the 5 year survival rate shows a dramatic fall.

It is a time-honored surgical conclusion that in the treatment of any type of cancer, including uterine cervical cancer, regional lymphnodes metastasis has a profound influence on the cure rate in surgically treated cases. Review of the literature published by many



authorities including Dr. Meigs shows that the average 5 year survival rate in the positive nodes group is 22 % and that in the negative nodes group 62 %. In this connection, the 5 year survival rate in the positive nodes group in our 1955-1958 series was 40%, in our 1959-1961 series 41.3%, in the negative nodes group in our 1955-1958 series it was 82.9%, in our 1959-1961 series it was 81.6%. The data are overall results from Stage I to IV. It will be seen that in our series, the 5 year survival rate, not only in the negative node group but also in the positive node group, is much higher than those in literature, almost twice as high. The reason for such excellent results might be attributed to the completeness of lymphadenectomy in our series. The comparison of the end results between our 1955-1958 and 1959-1961 series is shown in the tables. The 5 year survival rate in our 1959-1961 series seems to be poorer than that in our 1955-1958. However, this might be due to the higher incidence of lymph nodes metastases in Stages I and II in our 1959-1961 series as compared with our 1955-1958 series. In the 1955-1958 series postoperative irradiation was performed in the positive node group but this was not done in the 1959-1961 series. However, from these data, postoperative irradiation seems to have played no role in the increase in the 5 year survival rate.

There are many pelvic surgeons such as Parsons and Graham, very strangely both were Meigs's students, who are skeptical of the value of pelvic lymphadenectomy considering lymphadenectomy being too dangerous a procedure. McClure-Brown believes that if the nodes are involved there is no point in dissection, and if these are not involved, there is no need for it. However, based on our experience it is an undeniable fact that a considerable number of uterine cervical cancer patients with positive nodes can survive more than 5 years after radical operation and without postoperative irradiation, and patients who have positive nodes even, after irradiation failure, can be cured by surgery.

There has been a concept that lymph nodes are a part of reticuloendothelial system producing immune substance counteracting exogeneous foreign substances. The total number of lymph nodes obtained by pelvic lymphadenectomy shown considerable individual variations, if we may assume that the large number of lymph nodes dissected can represent a well developed lymph apparatus, i.e. congenitally well-developed immune equipment, then there should be some correlation between the number of lymph nodes dissected or ratio of metastatic nodes to the total number of lymph nodes dissected and the 5 year survival rates. However, as our tables show, we could not ascertain such correlation.

There is still some thought that cancer at a younger age progresses more rapidly than that at older age, that is, cancer at a younger age is expected to be of poor prognosis. As the tables show, our data do not indicate such correlation.

It has been widely believed among laymen that estrogen is a carcinogen. We have used estrogen for the prevention of ureter fistulae and for facilitating the recovery of bladder function in a certain number of cases. In this group the 5 year survival rate is not poorer than the cases without estrogen therapy. When we load the uterine cervical cancer patient with 20 mg. estrone sulfate intravenously, there is a tendency that in uterine cervical cancer patients estrone sulfate is converted more to estradiol than to estriol.

The histologic type of cancer bears remarkable influence on the prognosis. Our statistics have borne out that adenocarcinoma of the uterine cervix shows a higher incidence of lymph nodes metastasis (29.4%) than epidermoid carcinoma (18.13%). The prognosis of adenocarcinoma of the uterine cervix is apparently poor as compared with the epidermoid type but it seems that the poor prognosis in adenocarcinoma is related not only to a higher incidence of lymph node metastasis but also probably to adenocarcinoma per se, that is, evidenced by the fact that in adenocarcinoma, the presence of lymph node metastasis caused the cure rate to drop more sharply from 82.6% in the negative nodes group to 25% in the positive



nodes group as compared with the corresponding figure in epidermoid carcinoma dropping from 82.91% to 40%. Since the average number of lymph node metastasis is approximately the same in both types of cervical cancer(4.18:4.91) it may be assumed that lymph node metastasis exerts a graver influence on the prognosis in adenocarcinoma than in epidermoid carcinoma, as evidenced by the fact that the cases of adenocarcinoma of the uterine cervix with more than 2 lymphnode metastases showed no 5 year survivals, while the cases of epidermoid carcinoma of the uterine cervix with more than 2, 5, 11, even 30 lymphnode metastases could have 5 year survivals. We have experienced 4 cases of small cell carcinoma. Two died within one year, of recurrence, one had recurrence within one year but was survived one year and a half after treatment with Mitomycin and radium irradiation, but died recently, one is still alive free from recurrence but too short (8 months) in follow-up for us to foretell the fate. As far as the CPL classification proposed by Prof. Imai is concerned, we will reveal the findings of our study, after completion of our investigations regarding the validity of the classification in predicting the prognosis of individual cases. Cervical cancer complicating pregnancy seems to bear a graver prognosis than non-pregnant patients.

Lastly I would like to mention the host tumor relation. According to the literature no case of uterine cervical cancer with more than 5 metastatic lymph nodes could survive more than 5 years, but in our series there are many cases with 5, 6, 10, 11, 12 metastatic nodes surviving more than 5 years. Moreover, a case of uterine cervical cancer, Stage 1 with a uterine fibroid, showed 30 metastatic nodes among 31 lymph nodes removed, and she is well and living 5 years after operation. Recently we have had 2 cases of uterine cervical cancer surviving more than one year in spite of 29 and 32 lymph node metastases. We have a case of early breast cancer with 21 metastatic nodes among 22 lymph nodes removed, who has survived 7 years. This proves the completeness and thoroughness of our lymphadenectomy but on the other hand it indicates the host's excellent resistance against cancer, because, under the same techniques, also many cases of early uterine cervical cancer without node metastases died, within one or two years, of recurrence. Our knowledge about the host tumor relation is still meager, although there has been some pioneering work. There is still much to be studied in this field.

