Preliminary Study on Preventive Effect of Kanglaite Injection on Remote Metastasis of Cervical Lymph Nodes N2, N3 Nasopharyngeal Carcinoma

Xue Weiping, Liu Yimin, Bai Shoumin
Dept. of Radiotherapy, Sun Yat-sen’s Memorial Hospital, Guangzhou 510120 Guangdong

[Key Words] Nasopharyngeal Tumor/ Radiotherapy; Follow-up study
From Jun. 1999 to Jun. 2000, a prospective study was conducted on 32 cases of Cervical lymph nodes N2, N3 low-differentiated nasopharyngeal squamous Carcinoma (according to clinical staging), which were randomly grouped and then treated with a radical radiotherapy for the first time; at the same time, the patient were also treated with KLT. The preventive effect of KLT on remote metastasis was observed and the results are reported as follows:

1. Clinical Data
1.1 Selection of Cases
Patients who had been firmly diagnosed pathologically to be cervical lymph nodes N2, N3 low-differentiated nasopharyngeal Squamous carcinoma (1992’s staging) with Age 28-65, median age 50 and had no remote metastasis by routine examinations before the treatment were randomly grouped into two groups, radical radiotherapy + KLT group 15 cases (male 11 cases, female 4 cases, N2 9 cases, median age 49); and radical radiotherapy + chemotherapy group 17 cases (male 11 cases, female 6 cases, N2 11 cases, N3 6 cases, median age 50). There was comparability between the clinical data of the two groups through the statistical tests.

1.2 Method of Treatment
All the 32 cases of nasopharyngeal carcinoma were treated with the routine sectional radiotherapy method, the first section, i.e. faciocervical associated field (region) + infracervical –supra and subclavicular region-frontal tangent field were radiated with 40 Gy on each of the fields; the second section . i.e preauricular field (26-32 Gy) + full cervical anterior tangent field (20 Gy). If there was any residual tumor mass, 9 MEV electronic ray 6-10Gy was supplemented. The patient in the KLT group began their treatment on the first day of the radiotherapy, before the radiotherapy the patients were given KLT Injection 100ml through intravenous infusion, once a day for 20 consecutive days. The patients in the control group were given radiotherapy + PF protocol inductive chemotherapy for 2 treatment courses and accessory treatment for 4 treatment courses.

1.3 Observation of Therapeutic Effect
After the end of the radiotherapy, the patients were examined every 3 months with B-mode sonographic exam of liver, plain film of chest, and CT scan of bones, once per a half-year. The time limit of the observation was beginning from the end of the radiotherapy to one year after the radiotherapy
1.4 Method of Statistics
A significant difference was found using chi-square test.

2. Results
All the cases were reexamined with magnetic resonance imaging (MRI) on their nasopharyngeal and cervical regions and they all reached the level of CR three months after the end of the radiotherapy. All of them were followed-up until Jun, 2001 with a follow-up rate 100%. Among the 32 cases, except one case in the control group had local (nasopharyngeal region) relapse (a problem related to the set up of the field), none of the other cases had local relapse. The remote metastatic rates of the radiotherapy +KLT group and radiotherapy + chemotherapy group were 0/15 and 6/17 respectively. Through the adjusted chi square test, there was significant difference ($\chi^2=4.405$, p<0.05) in remote metastatic rate between the two groups.

3. Discussion
Radical radiotherapy for nasopharyngeal carcinoma belongs to a local therapy with a relatively long treatment course. Cervical lymph nodes N2, N3 nasopharyngeal carcinoma has a greater tendency of its remote metastasis, and how to prevent the occurrence of metastasis in its early stage while the patients are given radiotherapy is the crux for raising patients cure rate. After the induction therapy has induced the shrinkage of tumor and has begun radiotherapy without considering the acceleration of tumor cells multiplication as well as the redistribution of cell cycles, thus enabling remote subclinical tumor foci can grow continuously in the long cycle of radiotherapy. This has also been verified that the comprehensive treatment wouldn’t raise the survival rate.

Except that the accessory chemotherapy, which is given after the radiotherapy, hasn’t been considered to treat remote subclinical tumor foci as soon as possible so as to prevent them from growing, another problem is the resistance of tumor cells to chemotherapeutic agents after they have been used repeatedly. Theoretically, simultaneous application of radiotherapy and chemotherapy has the advantage of mutual complementation, but in practical treatment severe toxic and side effects have often caused the interruption of the treatment, thus affecting the therapeutic results. These problems have hindered the present comprehensive treatment from giving full play to its due effect. From the preliminary results of simultaneous application of radiotherapy and KLT Injection in the prevention of remote metastasis, KLT Injection may have the preventive effect on remote metastasis, which will laid the foundations for a further long-term observations and expanding observed cases.