The application of Kanglaite Injection (KLT) in palliative treatment of advanced non-small-cell lung cancer (NSCLC)

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[ABSTRACT] Purpose To study the application of Kanglaite Injection (KLT) in palliative treatment of advanced non-small-cell lung cancer (NSCLC). Method 42 cases of advanced NSCLC patients were grouped randomly into KLT treatment group and control group. For KLT group: KLT 100ml/d x 21d, one cycle/month, 3 months/one course. To observe the completion rate of treatment, response rate (RR), median survival time (MST), and quality of life (QOL) improvement. Result KLT group: 90.47% (19/21) completed the treatment which was notably higher than the 52.38% (11/21) of the control group (P<0.05). Response rate (CR+PR) in KLT group was 76.19% (16/21), notably higher than the 47.63% (10/21) of control group (P<0.05). QOL score increased (13.42 ± 3.26) in KLT group, remarkably higher than the (4.43 ± 3.72) in control group (P<0.01). MST in KLT group was 32.43 weeks, much longer than 21.76 weeks in control group. Conclusion The application of KLT for palliative treatment of advanced NSCLC patients can prolong survival time and improve QOL. [KEY WORDS] Kanglaite; Non-small-cell lung cancer; Palliative treatment

Advanced non-small cell lung cancer (NSCLC) is hard to cure[1]. Although palliative radio- or chemotherapy is the common means to treat, cancer patients in late stage were usually too week to endure the toxicity and side effects that brought from the therapy. They broke off halfway. KLT can kill cancer cells directly and enhance body immunity[2,3]. Therefore, we included 21 cases of advanced NSCLC patients from July 2000-July 2002 who were administered with KLT for palliative treatment based on general radio- or chemotherapy. The result was desirable.

1. Material and method
1.1 Clinical data
42 cases were all diagnosed by pathology examination as advanced NSCLC who had accepted radio- or chemotherapy before. They were randomly divided into KLT group and control group, 21 cases each. KLT group: male 14 cases, female 7 cases; age (47.36 ± 11.24); squamous cancer 19 cases (stage III 7 cases, stage IV 12 cases), adenocarcinoma stage III 1 case, adenosquamous cancer stage III 1 case; QOL 69.32 ± 26.41. Control group: male 13 cases, female 8 cases; age (45.72 ± 12.64); squamous cancer 17 cases (stage III 5 cases, stage IV 12 cases), adenocarcinoma 3 cases (stage III 1 case, stage IV 2 cases), adenosquamous cancer stage III 1 case; QOL 71.08 ± 24.84. Difference between the two groups was of no statistical significance.
1.2 Treatment method
Based on patient status, we adopted EP regimen (Cisplatin DDP 20mg/m², iv drip, d1-5; Etoposide 100mg/m², iv drip, d1-3) for a period of 2-3 weeks followed by radiotherapy on primary focus or metastasis on pulmonary hilar, mediastinum, clavicle and cervical lymph node. Dosage 40-65 Gy. In control group, both radiotherapy and chemotherapy were adopted. While in KLT group, KLT was added on, 100ml/d x 21d, one cycle/month, 3 months as one course. 1-2 courses were taken based on actual need.

1.3 Efficacy evaluation
To observe the completion of radio- and chemotherapy in both groups (those gave up half way because of unbearable toxicity and side effects were considered as not completed). Follow-up and re-examination of CT scan, chest film or efficacy evaluation (based on standard for short-term responses CR+PR¹ to solid tumor) was done after treatment and every 3 months after treatment. Record median survival rate and QOL difference before and after treatment (increased >10 as improved, decreased >10 as reduced and less than 10 in increase or decrease as stable).

1.4 Statistical analysis
The completion rate, response rate and survival rate (%) of radio- and chemo-therapy were counted by X² test; QOL (x±s) by t test.

2. Result
90.47% (19/21) patients in KLT group completed the treatment as scheduled which was higher than 53.28% (11/21) in control group. There was statistical significance (P<0.05). MST: 32.43 weeks in KLT group and 21.76 weeks in control group. RR (CR+PR): 76.19% (16/21) in KLT group and 47.62% (10/21) in control group (P<0.05). QOL score increased: KLT group 11.42±3.26, control group 4.43±3.72 (P<0.01).

3. Discussion
NSCLC is one of the malignant tumors that have the highest incidence. Most patients are in their late stage when diagnosed[1]. Palliative treatment is then of great importance in NSCLC treatment. With the birth of “the world hospice and palliative care day”, more and more attention was given to palliative treatment[4]. The new concept is that palliative treatment should be given as early as possible, not only as a comfort support at the end of life. To those incurable cancer patients, palliative treatment aims to enhance QOL rather than prolong survival[5]. It is reported that KLT can defend and prevent the side effects of radio- and chemo-therapy[3]. Our trial had also proved that an earlier use of KLT in advanced NSCLC treatment can improve the tolerance to radio- and chemo-therapy, assist successful completion of the treatment, and enhance RR and survival time as well as increasing QOL score.
In the year 2003, the International Association of Breast Cancer proposed to change the expression of “the maximum tolerated treatment” to “the minimum tolerated treatment”. This action integrated QOL improvement into the comprehensive cancer treatment, addressing the new principle of people-oriented in the palliative treatment of advanced cancer patients. KLT, a biphasic broad-spectrum anticancer drug with little toxicity and adverse reactions itself, has the function of inhibiting the growth of cancer cells, preventing and relieving side effects from radio- and chemotherapy. It is in compliance with the principle of palliative treatment for advanced cancer patients.

**References**