Clinical observation on KLT combined with NIC in the treatment of advanced NSCLC

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[Abstract] Objective To study the efficacy of KLT combined with NVB, IFO and CBP, and compare with synchronized chemotherapy group. Methods Analyze the clinical data of KLT combined with chemotherapy group (22 cases) and synchronized chemotherapy group (26 cases). Results The relief rate of chest pain and improvement rate of life quality in KLT+NIC group were 77.27% and 68.2%, bone marrow depression was reduced also. The relief rate of chest pain and improvement rate of life quality in NIC group were 30.77% and 30.8%. Conclusion The efficacy in KLT+NIC group was better than that in NIC group.

[Key words] KLT; NSCLC; Drug therapy

KLT combined with NIC regimen was applied in the treatment of 22 cases with NSCLC who were randomly divided into 2 groups for controlled observation. The efficacy was relatively satisfied and reported as follows.

1 Materials and methods
1.1 Selection of patients
48 cases were all pathologically confirmed by bronchofibroscope biopsy to be with NSCLC. All cases were later than stage III according to TNM staging method of lung cancer through clinical examination and chest film, CT examination. They had lost the opportunity for surgery. Their KPS scores ≥ 60 points and expectant survival time ≥ 3 months.

1.2 General data
All cases were randomly divided into treatment group and control group.
In treatment group (22 cases): male 17 cases, female 5 cases, average age 60(48-72).
In control group (26 cases): male 19 cases, female 7 cases, average age 58(43-73).

1.3 Treatment methods
Treatment group: KLT 200 ml/d, iv drip, d1-15; NVB 50 mg/d, iv drip, d1; IFO 5 g/d, iv drip, d2; CBP 500 mg/d, iv drip, d3.
Control group: the same regimen with treatment group except KLT.

2 Results
2.1 Clinical efficacy
The response rates in treatment group and control group were 54.5% and 34.6% respectively, with significant difference between 2 groups (P<0.05). It indicated KLT combined with NIC regimen had better efficacy.

2.2 Efficacy on symptoms
Efficacy scores: grading according to the severity of symptoms, the efficacy should be scored as 3 points (degree III), 2 points (degree II) and 1 point (degree I).
For symptoms of cough, chest pain, and dyspnea: degree I should be defined as symptoms occurring without affecting normal life, degree III as severe symptoms affecting normal life significantly, the situation between them as degree II. For hemoptysis: degree I as sputum with blood, degree II as sputum with blood clot or bloody sputum less than 10 times daily, degree III as sputum full of blood or bloody sputum more than 10 times daily. Declines on clinical symptoms scores >2/3 as significant improvement, declines >1/3 as partial improvement, no changes as stable.

KLT could relieve uncomfortable symptoms, improve or stabilize physical capacity and had especially significant relief effects on pain (P<0.05). See Tab. 1.

Tab. 1 Comparison on improvement of symptomatic efficacy

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Treatment group</th>
<th>Control group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases</td>
<td>%</td>
<td>Cases</td>
</tr>
<tr>
<td>Cough</td>
<td>10</td>
<td>45.45</td>
<td>11</td>
</tr>
<tr>
<td>Hemoptysis</td>
<td>14</td>
<td>63.63</td>
<td>16</td>
</tr>
<tr>
<td>Chest pain</td>
<td>17</td>
<td>77.27</td>
<td>8</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>11</td>
<td>50.00</td>
<td>12</td>
</tr>
</tbody>
</table>

2.3 Quality of life

Life quality should be evaluated in accordance with "KPS Scores Standard", increase for 20 points after treatment as significantly improved, increase for 10 points as improved, no increase as stable, decrease for 10 points as reduced. The improvement rates in control and treatment group were 30.8% and 68.2% respectively, with significant difference. See Tab. 2.

Tab. 2 Comparison on improvement of life quality

<table>
<thead>
<tr>
<th>Group</th>
<th>Cases</th>
<th>Improved</th>
<th>Stable</th>
<th>Reduced</th>
<th>Improvement rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment group</td>
<td>22</td>
<td>15</td>
<td>5</td>
<td>2</td>
<td>68.2</td>
</tr>
<tr>
<td>Control group</td>
<td>26</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>30.8</td>
</tr>
</tbody>
</table>

P<0.05, \(x^2=7.06\)

2.4 Adverse reaction

The rates of bone marrow depression and declines on WBC were 36.4% in treatment group and 61.5% in control group, with significant difference (P<0.05). It indicated KLT combined with NIC regimen could reduce bone marrow depression.

3 Discussion

Kanglaite Injection was an emulsion extracted from a Traditional Chinese Medicine-"Semen Coisis" with modern technology. It had the function of anticancer, providing high-energy nutrition and treating cachexia [1]. It could also activate the activity of NK cells and IL-2, promote the value of CD4/CD8 and improve immunological function. KLT combined with low dosage of chemotherapy could improve the efficacy on some solid tumors and reduce the adverse reaction of bone marrow depression caused by chemotherapy.

Most NSCLC in stage IIIB or stage IV could not be cured by current therapy. The major purpose of treatment has become to relieve disease and prolong survival time. DDP (CBP) was mainly used in the chemotherapy of NSCLC, while those regimens based on DDP (CBP) had little benefit on survival and large toxicity. Higher dosage of DDP (CBP) could not improve survival
rate\(^2\). Thus KLT combined with NIC regimen was applied here to treat NSCLC. Since it was extracted from TCM and had different mechanism with NVB, IFO and CBP, the combined administration would have synergistic action and improve therapeutic effects. Previously clinical studies demonstrated that KLT could relieve clinical symptoms, improve quality of life and prolong survival time\(^3\), without increasing toxicity. The results indicated KLT combined with chemotherapy had considerable advantage over those previous regimens based on DDP (CBP).

References