

A comparative study: Complications and recovery from surgery in cancer patients. Chinese Herbal Medicine Shen Mai Zhu Ye (Ginseng and Ophiopogon Injection) vs. comparison group.

## Clinical observation reports

### SHEN MAI ZHU SHE YE (GINSENG AND OPHIOPOGON INJECTION)

Liu et al. investigated the effects of *Shen Mai Zhu She Ye* (Ginseng and Ophiopogon Injection) in promoting postoperative recovery of patients with breast cancer.<sup>4</sup>

**Groups:** Eighty patients undergoing breast cancer surgery but without any accompanying diabetes, hypertension, heart disease or hemorrhagic disorders were selected from those attending the breast clinic at the authors' hospital and divided randomly into two groups according to the date of admission to the authors' hospital:

- 40 patients aged from 29 to 70 (mean age:  $48.2 \pm 9.4$ ) were placed in a TCM plus chemotherapy group; 34 patients had undergone a modified radical mastectomy. Local extensive removal of tissue plus clearance of lymph nodes in the axillary fossa was undertaken in the other 6 cases. The average amount of bleeding during surgery was  $444 \pm 199$ ml. Postoperative staging based on the WHO TNM classification resulted in 8 cases being staged at T<sub>1</sub>NoMo, 11 at 2<sub>1</sub>NoMo, 10 at T<sub>1</sub>N1Mo, 9 at T2N1Mo, and 2 at T3NoMo.
- The other 40 patients aged from 30 to 69 (mean age:  $47.1 \pm 9.8$ ) were placed in a chemotherapy-only group; 34 patients had undergone a modified radical mastectomy. Local extensive removal of tissue plus clearance of lymph nodes in the axillary fossa was undertaken in the other 6 cases. The average amount of bleeding during the operation was  $378 \pm 175$ ml. Postoperative staging based on the WHO TNM classification resulted in 7 cases being staged at T<sub>1</sub>N0M0, 11 at 2<sub>1</sub>N0M0, 9 at T<sub>1</sub>N1M0, 10 at T2N1M0, and 3 at T<sub>3</sub>N0M0.

#### Method

For the TCM plus chemotherapy group, 60ml of *Shen Mai Zhu She Ye* (Ginseng and Ophiopogon Injection) dissolved in 300ml of 10% glucose was administered by intravenous infusion over 1.5 hours for seven days commencing on the day after surgery. The injection, produced by Hangzhou Zheng Da Qing Chun Bao Pharmaceutical Company, consisted of *Ren Shen* (Radix Ginseng) and *Mai Men Dong* (Radix Ophiopogonis japonici). As soon as the surgical wound healed, the first course of chemotherapy was given. Eighteen patients were given cyclophosphamide, methotrexate and 5-fluorouracil (CMF), 15 were given doxorubicin (Adriamycin®), and 7 were given cyclophosphamide, doxorubicin (Adriamycin®) and cisplatin (CAP). The course lasted for two weeks, followed by a rest period of two weeks and then the second chemotherapy course.

The chemotherapy-only group was given chemotherapy without TCM treatment over the same period as the TCM plus chemotherapy group; 18 patients were given the CMF regime, 16 were given doxorubicin (Adriamycin®), and 6 were given the CAP regime.

Complications (including skin flap necrosis, pleural effusion and infection) were recorded and measurements taken of the postoperative drainage volume, the wound healing time, and peripheral blood values (including WBC, Hb and platelets) before the operation, on the third and ninth postoperative days, and one week before the second course of chemotherapy. NK cells and T lymphocyte subsets (CD3, CD4, CD8) of 22 patients in each group were measured before the operation and on the ninth postoperative day. The *t* test was used for statistical purposes.

#### Results

Complications: four patients with **pleural effusion** and one with **wound infection** in the TCM plus chemotherapy group; seven patients with pleural effusion, one with wound infection and two with skin flap necrosis in the group treated by chemotherapy only.

The wound healing time in the TCM plus chemotherapy group was shorter than in the chemotherapy-only group ( $P < 0.05$ ): postoperative drainage volumes were not significantly different (see Table 3-1).

**Peripheral blood values** were not significantly different between the two groups before the operation and on the third postoperative day; the white blood cell and platelet count showed no significant differences between the two groups on the ninth postoperative day and after

the first course of chemotherapy, but hemoglobin in the TCM plus chemotherapy group returned toward normal values significantly quicker than in the chemotherapy-only group,  $P < 0.05$  (see Table 3-2). NK cells, CD<sub>4</sub> and the CD<sub>4</sub>/CD<sub>8</sub> ratio in the TCM plus chemotherapy group rose significantly faster than in the chemotherapy-only group (see Table 3-3).

**Conclusion**

The authors suggest that injection of *Shen Mai Zhu She Ye* (Ginseng and Ophiopogon Injection) may benefit recovery of immune function postoperatively in patients with breast cancer, reduce the occurrence of complications, and create an environment for early commencement of postoperative chemotherapy.