

The New Technique Used in the Modified Radical Surgery of Breast Cancer

Zhiyong Yu, Peimin Wang, Yanbing Liu, Peiyong Zhuo,
Zhengbo Zhou, Lei Wang, Jingying Zhu, Taihuang Wu,

Breast Disease Center of Shandong Tumor Hospital, Jinan 250117, China*

The modified radical surgery is main surgical therapy of breast cancer in the world now. From May 1999 to October 2002, we applied modified radical mastectomy by Auchincloss type on 105 patients of breast cancer, and we improved the usual method by pulling up the space between pectoralis and deltoid muscle in order to expose the surgical field well. So, we could remove the Level 3 and the interpectoral lymph nodes by finding them directly, and gained satisfied result.

MATERIAL AND METHODS

Material 105 female patients of breast cancer, aged 35~69 years old. The median age is 44 years old. Clinical stage: Stage I 10 cases, stage II 61 cases, stage III 34 cases.

Methods (1) All the surgeries were operated by one major surgeon who had worked more than 10 years in this speciality. All the surgeries accepted modified radical surgery of Auchincloss type, including dissection of the interpectoral space. Then three surgeons checked the surgical field and be sure there were no inspectable lymph node. (2) Dissociate the interpectoral groove, from the sternoclavicular joint to the tubercle of humerus to which the pectoralis major attach. The instrument of opening chest was used to pull pectoralis major to expose the deep fascia between pectoralis major and minor. Pay attention to the thoracoacromial vessels, minor branches of lateral nerves. Dissect the lymph nodes and fat tissue and the deep fascia from the coracoid process where the pectoralis minor attach to. The samples we got were marked as L2b. (3) Draw the pectoralis minor using pulling hook of thyroid gland, dissect the L3 residual lymph fat tissue completely, especially pay attention

to the proximal part of axillary vein, thoracoacromial vessels, the root part of minor branches of lateral nerves and the part in Auchincloss surgical type can't reach. All the samples were marked as La.

RESULTS

We got 77 lymph nodes of Level 2b with an average L3 of each case. There were 20 lymph nodes in which cancer invaded were found 20 30 lymph nodes of La, with an average 0.38 of each cases, nine metastatic lymph nodes were detected.

DISCUSSION

Auchincloss type is the classic surgical type in the treatment of Stage I and Stage II breast cancer. In the modified radical surgery, nerves and vessels usually be damaged^[1]. The function of the pectoralis major can be protected only if we don't damage the vessels and nerves. In 1993, Hena^[2] improved the modified radical surgery by using pulling hook of thyroid gland to draw the deltoid and interpectoral groove. The third pulling hook draw the pectoralis minor to dissect the L3 lymph nodes. There are many difficulties in this kind of operation, so it is not widely used.

Our modified Auchincloss surgical type has these advantages: (1) The operation could be easily finished and the surgical field is steady. So we can dissect the lymph nodes at the root of the thoracoacromial vessels and nerves without damaging them. (2) We can dissect the lymph nodes thoroughly. The La is belong to L3 lymph nodes and L2b is part of Roter's lymph nodes in the regular surgical type. L3 and Roter's lymph nodes are often missed in the dissection in the regular surgical type. In this study, we get extra 1.3 interpectoral lymph nodes each patient, There are 20 metastatic

* Zhiyong Yu, associate Prof. PhD. Tel: (0531) 6819525, e-mail: drzhiyongyu@yahoo.com

lymph nodes were found. So the Roter's lymph node can't be ignored. (3) We can treat the stage III patients with new type surgery and the effect is same as with the Halsted radical surgery, but the living quality of the patients is much better. (4) We can decide the clinical stage of the patient more exactly after this operation. So auxiliary treatment can be done more reasonable. (5) Vessels and nerves are well protected in the surgery. Patients underwent get this new type surgery can be much better functionally and formally.

Further more, Auchincloss type can dissect the local lymph nodes nearly clear of the patients in early stage. But if the Level 2 or Level 3 are in-

vaded by cancer, we think our surgical type is more effective. Of course, the long time clinical effect of this new surgical type need to be evaluated after long time follow up.

REFERENCES

1. Gai Baodong, Shi Weidong, Zhang Deheng, et al. The study of the causes about of pectoralis major after modified radical surgery, the Practical Surgery Journal of China, 2000, 20(5): 279-280.
2. Muhammad A Hena, Yusuf N Sik, Complete axillary lymph node dissection. J Surg Oncol, 1993, 52:40-41.