

Breast Surgery

Introduction

In breast surgery division, early and advanced breast cancer patients are treated with multi-disciplinary approach of surgery, chemo-endocrine therapy, and radiation therapy. Sentinel node biopsy (SNB) is practically performed for clinically node-negative early breast cancer patients. Primary chemo-endocrine therapy is recommended for advanced breast cancer patients. Breast or chest wall irradiation is performed following the risk assessment of loco-regional recurrence of postoperative patients. Since the beginning of our hospital in July 1992, about 2600 cases of primary breast cancer patients have been managed.

Routine Activities

Two hundred and sixty-four cases of breast cancer and other breast neoplasm were operated in 2005. Of 248 cases of primary breast cancer, 62 cases (25%) underwent primary chemotherapy. Modified radical mastectomy was performed in 35 cases, partial mastectomy with axillary lymph node dissection (ALND) in 72 cases, simple or partial mastectomy with SNB alone in 137 cases, and excisional biopsy or others in 4 cases (Table 1). Breast-conserving surgery was performed in 193 cases (78%) and axilla-conserving surgery in 141 cases (57%).

Adjuvant chemo-endocrine and radiation therapies improved the relapse-free survival and overall survival for high-risk breast cancer patients. Recently, adjuvant poly-chemotherapy including anthracycline and taxan has been given for node-negative high-risk, or node-positive breast cancer patients. Stage IIB or more advanced breast cancer patients receive primary chemotherapy followed by surgical treatment. From our statistical database, 8-year recurrence-free survival rate and 8-year overall survival rate at clinical stages are shown in Table 2.

Research Activities

The National Surgical Adjuvant Study of Breast Cancer (N-SAS-BC) 02 is ongoing to compare anthracycline with taxan for the first-line adjuvant chemotherapy in node-positive breast cancer patients. The Japan Clinical Oncology Group protocol (JCOG0306) was performed to evaluate pathological tumor response rate in operable breast cancer patients after primary chemotherapy of adriamycin and cyclophosphamide followed by taxol and breast radiation. Unfortunately, it has been stopped due to unexpected poor response of the initially registered cases. However, detailed analysis of this study may provide us new findings of cancer biology and new strategy of breast cancer.

We also investigate clinical research of SNB. Between 1999 and 2005, 710 cases have been treated with SNB alone without (ALND). Long-term prognosis and quality of life after SNB alone will be reported in 2006.

New Developments

We are challenging the development of breast ablation therapy. Breast cancer often spreads into the mammary ducts extensively, which refers to extensive intraductal components (EIC). However, breast cancer without EIC may be managed by ablation therapy instead of surgical resection. Radiation frequency ablation (RFA) is a very promising technique. To establish the surgical technique of RFA and evaluate the safety procedure, clinical study of RFA followed by partial mastectomy is underway for T1N0 breast cancer patients without EIC.

Table 1

Number of Cases of Operable Breast Cancer in 2005

Operation	No. of cases	(%)
Modified radical mastectomy	35	(14)
PM + ALND	72	(29)
SM + SNB	16	(6)
PM + SNB	121	(49)
Other	4	(2)

ALND, axillary lymph node dissection; PM, partial mastectomy;
SNB, sentinel node biopsy; SM, simple mastectomy

Recurrence-free Survival Rate (RS) and Overall Survival Rate (OS) at 8 Years in Breast Cancer Patients Treated between 1992 and 2000

Stage	(No. of cases)	RS	OS*
0	(43)	95 %	98 %
IA to C	(244)	91 %	95 %
IIA to B	(672)	77 %	83 %
IIIA to C	(102)	52 %	53 %
IV	(16)	0 %	20 %

*Including any kind of death