



# Skin Sparing Mastectomy with Immediate Breast Reconstruction

Ramya Peter, Mandana Pennick, Catherine Lagord, Gill Lawrence, Riccardo Audisio

NCIN Cancer Outcomes Conference, Brighton, June 2013

## INTRODUCTION

Skin Sparing Mastectomy (SSM) is a surgical technique that preserves the skin envelop of the breast while removing the mammary gland; this is replaced with an implant, a skin expander, the patient's own tissue or a combination of the above.

SSM is most frequently used to treat large lesions as well as multifocal tumours. The reconstruction normally takes place at the same time of the breast removal.

It associates to excellent cosmetic results and high levels of patient satisfaction; it is considered oncologically safe, but long term results are scanty.

## METHODS

Patients diagnosed with breast cancer (ICD-10 C50 and D05) in England between 01/01/2002 and 31/12/2010 were identified within the National Cancer Data Repository (NCDR).

Records for these patients were matched against the Hospital Episode Statistics (HES) dataset. HES episodes where the OPCS4 code "B27.6" (SSM) was recorded within 2 years of diagnosis were selected for this study.

West Midlands patients with SSM were identified and a recurrence algorithm developed by the West Midlands Knowledge & Intelligence Team was used to calculate the recurrence rate.

## Aim of the study

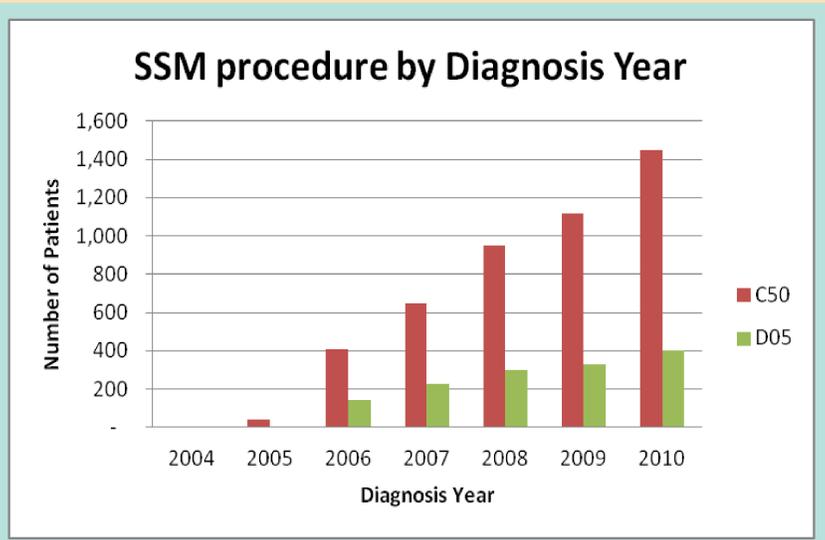
Skin sparing mastectomy (SSM) with immediate breast reconstruction has become popular as an effective treatment for patients with breast cancer. However some have suggested that there is a theoretical possibility of SSM being associated with higher recurrence rates due to some ductal cells potentially being left behind. The aim of this study was to evaluate the occurrence of recurrences post-SSM.

## RESULTS

### Number of SSM procedures

Between 2002 and 2010, 6,021 SSM procedures were recorded on HES, 4,612 (77%) were performed on patients diagnosed with invasive breast cancer and 1,409 (23%) on patients diagnosed with non-invasive breast cancer.

Although the cohort included patients diagnosed as early as 2002, only 49 SSM procedures were found in HES before 2006. The number of SSM increased year on year from 2006 onwards.



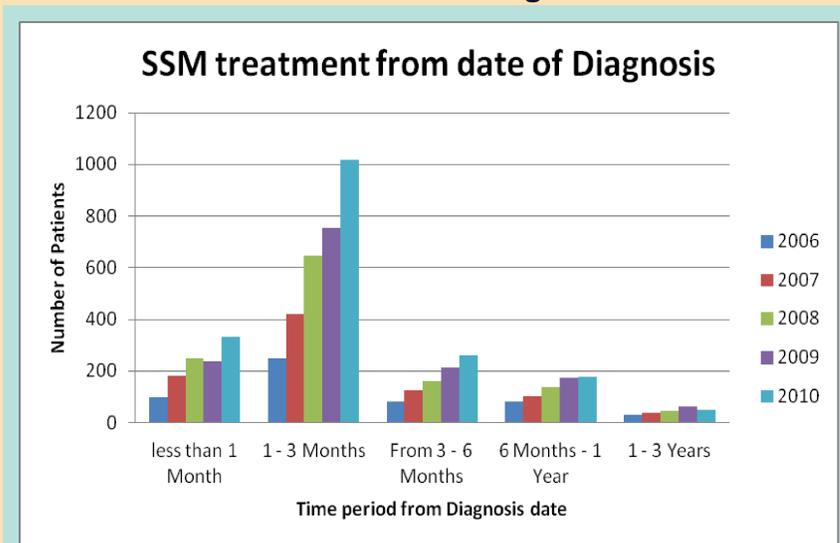
### Reconstruction after SSM

The majority (93%) of SSM procedures (for 5,610 cancers) were followed by at least one type of reconstructive surgery.

2,120 SSM procedures (35%) were followed by "Reconstruction of breast using myocutaneous flap of latissimus dorsi muscle" (OPCS4 B29.1), 1,633 (27%) by "Insertion of prosthesis for breast" (OPCS4 B30.1) and 287 (5%) by "Transverse rectus abdominis myocutaneous (TRAM) flap" (OPCS4 B39.1).

### Treatment timeline

Nineteen percent of invasive breast cancers were treated with SSM within 1 month of diagnosis and 49% were treated with SSM between 1 and 3 months of diagnosis.



### Recurrence rates

862 breast tumours recorded in the West Midlands were used to calculate recurrence rates following SSM. The recurrence algorithm developed by the West Midlands assigns a recurrence flag to tumours with a clear treatment pathway, no neo-adjuvant treatment and <3 months from diagnosis to first surgery.

Of the 862 tumours, 184 were excluded for the following reasons: 13 (2%) had no surgery, 22 (3%) had no clear primary pathway, 66 (8%) had neo-adjuvant therapy or a prolonged time period (>3 months) from diagnosis to first surgery and 83 (10%) were excluded because they had no clear gap after the primary treatment phase.

Recurrence events were recorded for 65 (9.6%) of the 678 patients in the cohort.

A recurrence event within 5 years of diagnosis was recorded for 32 (13.3%) of the 240 patients diagnosed on or before 2007. (These possible recurrences have not been validated by a clinician)

## CONCLUSIONS

Using routinely recorded cancer registration and HES data in England, we were able to show that the use of SSM procedures began in 2006. The 5-year recurrence rate following SSM in West Midlands patients included in the cohort was 13.3% (32/240 patients). These recurrence results need to be confirmed with greater numbers of patients and longer follow-up.