1. Concept

Skin sparing mastectomy (SSM) removes the breast, nipple-areola complex, previous biopsy incisions, and skin overlying superficial tumors. Nipple sparing mastectomy (NSM) preserves the nipple-areolar complex (NAC) as well. Preservation of the inframammary fold, native skin, and potentially the NAC greatly enhances the aesthetic result of immediate breast reconstruction. These techniques facilitate breast shaping and the abundant native skin reduces the amount of tissue transfer required. In cases of autologous reconstruction, there is an added advantage in a reduction in surgery on the contralateral breast to achieve symmetry. The periareolar or inframammary fold incisions are relatively inconspicuous and are easily hidden in clothes.

Non-randomized studies comparing the local recurrence of breast cancer associated with SSM and conventional total mastectomy have found no significant differences (Carlson et al. 1997). Prophylactic NSM is effective in women at high risk of developing breast cancer. Limited data has shown that the selective use of NSM in the treatment of early breast cancer has a low incidence of recurrence in the NAC (Chung et al. 2008).
2. Indication

2.1 Nipple sparing mastectomy

Nipple sparing and skin sparing mastectomy are used in patients having prophylactic mastectomy and those with early breast cancer in conjunction with immediate breast reconstruction. Specific indications for NSM include:

- Small tumors located at least 1cm outside of areolar margins
- Absence of nipple retraction or bloody nipple discharge
- Absence of retroareolar microcalcifications on mammography
- Small to moderate sized breast with minimal ptosis (grade I)

3. Contraindication

NSM does not allow modification of the native skin envelope as does a SSM. Movement of the NAC, unless used as a free graft, requires its transposition on a dermoglandular pedicle. This would require preservation of additional breast tissue which significantly impacts the completeness of the mastectomy. Contraindications for NSM / SSM include:

- Locally advanced breast cancer with nipple involvement or peripheral skin involvement
- Recent smoking history and history of breast irradiation are relative contraindications
- Large ptotic breast (grade II / III) are not candidates for NSM

Fig. 1:
Types of skin sparing mastectomy