

PSG Algorithm for Nipple-Sparing, Skin-Reducing Mastectomy – is it safe?

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Introduction

Nipple-sparing, skin-reducing mastectomy (NS-SRM) offers oncologic safety and aesthetic benefits for ptotic breast cancer patients. However, complications such as nipple-areola complex (NAC) and skin flap necrosis remain significant challenges. This study presents an algorithm developed from a cohort of 22 patients to mitigate these complications

Patients

Between 2020 and 2025, 22 patients underwent wise pattern NS-SRM with either primary autologous (n=16) or implant-based (n=6) reconstruction. Risk factors: smokers (n=4), post neoadjuvant chemotherapy (NACT) (n=7), BMI>30 (n=6).



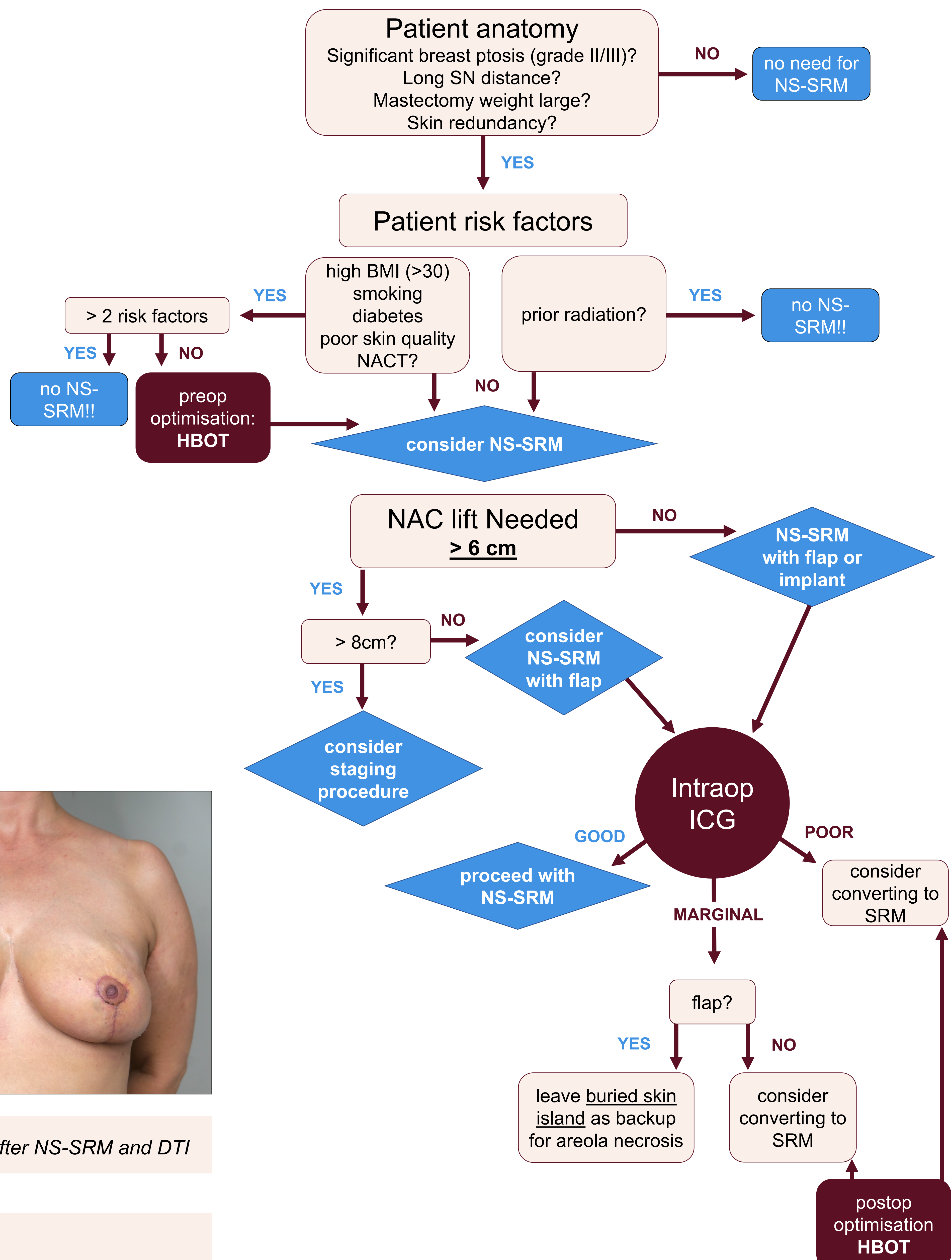
Pre-op, SN-N: right: 28 cm; left: 29 cm



3 months postop after NS-SRM and DTI

Results

Among the 22 patients, minor wound scabs were observed in several cases, without the need for reoperation. Two instances of NAC necrosis were reported. HBOT (hyperbaric oxygen therapy) was administered to these patients, resulting in resolution of ischemic changes and preservation of the NAC in one case. No cases of flap or implant loss were observed. HBOT was used preoperatively in 9 cases, with a mean number of 3 sessions per patient before NS-SRM.



Conclusion

The proposed algorithm for NS-SRM with either implant or autologous reconstruction effectively minimizes complications such as NAC and skin flap necrosis, also in patients with known risk factors. Intraoperative assessment of NAC perfusion and perioperative HBOT are critical components of this approach.