

Robotic Nipple-Sparing Mastectomy and Immediate Breast Reconstruction with Gel Implant

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PAST

Endoscopic-assisted nipple-sparing mastectomy (E-NSM) alone or followed by immediate breast reconstruction (IBR) with implants or autologous flaps were reported to be associated with small, inconspicuous incisions and good cosmetic outcome.¹ However, the two-dimensional, endoscopic, in-line camera produces an inconsistent optical window around the curvature of the breast skin flap. The internal mobility was limited, and the dissection angles were inadequate with traditional endoscopic rigid tips instruments through single access. Due to the limitations of endoscopy instruments and technique difficulty, neither conventional E-NSM nor single access E-NSM was used widespread in breast cancer.

PRESENT

Robotic surgery, which incorporates a three-dimensional imaging system and flexibility of robotic arm and instruments, had been growingly used in different field of surgeries. Robotic nipple-sparing mastectomy (R-NSM), which introduce da Vinci surgical platform through a small

axillary wound to perform NSM with (or without) IBR, was reported to have potential to overcome the technique difficulty of E-NSM and showed promising cosmetic outcome.^{2,3} In the current study, we report the preliminary experience and clinical outcome of R-NSM and IBR with Gel implant in breast cancer patients.⁴ The technique, perioperative morbidity, preliminary oncologic safety, and patient-reported cosmetic outcome were analyzed and reported. From our preliminary results, it was safe and feasible to perform R-NSM for breast cancer with rare margin involved case observed. R-NSM was associated with low nipple areolar complex ischemia/necrosis rate, and few morbidities observed. High patient-reported satisfaction rate in cosmetic outcome analysis was found.

FUTURE

From our preliminary experience, R-NSM and IBR with Gel implant is a safe procedure, with good cosmetic results, and could be a promising new technique for breast cancer patients indicated for mastectomy. Women with small- to medium-sized breasts, node-negative, and tumor located at upper outer quadrant with adequate skin to tumor distance (> 3 mm) are good candidates for R-NSM.⁴ The two main limitations of R-NSM are longer operation time and higher cost of robotic surgery.²⁻⁴ Long-term followed-up is needed to confirm the oncologic safety of R-NSM.

DISCLOSURE The author has no conflicts of interest to disclose.

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