The Nipple-Areola Preserving Mastectomy

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BACKGROUND: Conservative mastectomy procedures, such as the nipple-sparing mastectomy (NSM), present appealing options for patients with small invasive or non-invasive malignancies, and those needing prophylactic mastectomies. Despite outstanding postoperative cosmetic results, nipple-areola complex (NAC) and mastectomy skin flaps (MSF) survival remains a concern, with nipple excision secondary to partial or total necrosis been noted in up to 30% of the cases following nipple-sparing mastectomies (NSM). [5-8] The two-stage nipple-areola preserving (NAP) mastectomy, aims to decrease the rate of NAC loss and MSF necrosis following conservative mastectomies.

MATERIAL AND METHODS: Seventy patients who underwent NSM due to malignant and benign conditions, were divided into two groups: those who underwent our two-stage NAP mastectomy were matched to the group of mastectomy patients without preservation techniques. Demographic data and postoperative results were retrospectively assessed.

RESULTS: The NAP group comprised 45 flaps (24 patients) and the NSM group comprised 75 flaps (46 patients), with no significant difference in terms of age, BMI or ASA score. None were actively smoking. Mean time between the delay of the flap and breast reconstruction was 17.6 days (range of 10-35 days) in the NAP group. No signs of NAC vascular compromise were observed in the NAP group. Nipple necrosis rates were significantly greater ($p=0.0136$) in the NSM group. Two patients within the NAP group required nipple excision at the time of their mastectomies after biopsies performed at the time of the NAC delay were positive for malignancy or atypia.

CONCLUSION: Vascular delay techniques favor the blood supply of a tissue following a surgical wound, effectively improving the survival of the NAC and MSF after nipple-sparing mastectomies.

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