The use of hydrodissection in nipple and skin-sparing mastectomy: a comparative study
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BACKGROUND
- Hydrodissection: novel technique based on infiltration of mixture of 1lt of normal saline, 0.5 ml of 1:1000 adrenaline & 30 ml of 0.5% chirocaine to create the subcutaneous and pre-pectoral breast plane – separate fat from breast leaving only ligaments of Astley-Cooper and lift breast from pre-pectoral fascia
- Technique: Use of fat transfer, blunt tip needle (1.5mm - 12cm length) to Infiltrate 500 ml of fluid in each breast before parenchymal resection performed with sharp dissection

HYPOTHESIS
- Facilitate exposure of resection plane
- Reduced traction-related flap trauma
- Reduced need for secondary revision surgery

AIM
To evaluate the use of hydrodissection in risk-reducing, nipple-sparing mastectomy compared to standard surgical technique

METHODS
- Eligibility criteria: bilateral risk-reducing, nipple-sparing mastectomy & immediate reconstruction with implant and ADM through IMF incision
- HD Group: cohort of consecutive patients using hydrodissection
- Control group: cohort of consecutive patients using standard surgical technique before introduction of hydrodissection
- All surgery performed by same surgical group
- Non-parametric statistical analyses on per case and per procedure basis

RESULTS
- Reduced median hospital stay in HD group
- Hydrodissection associated with more events of partial thickness nipple necrosis – this did not result in more re-admissions or need for further intervention
- Significantly fewer patients in HD group required revisional surgery (Coleman fat transfer)
- Patients’ demographics and results summarized in Table

CONCLUSION
Introduction of hydrodissection in the setting of risk-reducing, nipple-sparing mastectomy & immediate implant-based reconstruction through IMF incision, in a selected cohort of patients, resulted in more minor complications in the form of partial thickness nipple necrosis but was also associated with reduced length of hospital stay and reduced need for surgical revision in the form of Coleman fat transfer