Indications for use of TiLOOP Bra 35 g/m²:

- High BMI
- Poor local tissue condition
- Large volume of breast implant

Indications for using TiLOOP Bra 16 g/m²:

- Patients with normal BMI
- Poor local tissue condition
- Balance between breast implant volume and patient BMI

Complication rate after ART:

- Complete loss of breast implant and mesh endoprosthesis 5.88%
- Capsular contracture 17.65%
- Only mesh removal due to painful syndrome 5.88%
- Red breast * syndrome (by analogy with ADM) 5.88%

What we have found as advantages:

- With the TiLoop-BRA mesh patient’s satisfaction with lower pole increased
- No contradiction for research
- TiLOOP Bra does not affect the calculation of the dose of radiation therapy
- Good option for patients with a delayed reconstruction as a additional protection of lower pole (in 2-staged reconstruction).

What we have found as advantages:

- This is a non absorbable material and we have seen cases with skin deformity (similar effect to ripling effect). The fact that Tiloop BRA is non absorbable material - is the main disadvantage.
- Surgical knots as a way to fixate TiLoop-BRA to pectoralis major muscle leads appearance of palpable areas of the skin (that negatively effects on overall satisfaction of patients).

Conclusion(s): Titanized mesh endoprosthesis can be used use to improve the results of breast reconstruction. Use of mesh implants economically more profitable compared to using acellular dermal matrix.

Conflict of Interest: No significant relationships.

P130

Appropriateness of handheld Doppler in identification of chest wall perforator for partial breast reconstruction

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Goals: The evolution of perforator flap reconstruction for partial breast defects has led to increasing work on identification of perforator using unidirectional Doppler, colour doppler, CT angiography, MRI and Indocyanine green. There has been increasing use of hand held Doppler for identification of both pre and postoperative settings. Comparative use of CT angiography and MRI with doppler has been done in many studies. Perforator flaps usually have a constant origin and course. Hence, hand held doppler is appropriate for identification in pre and postoperative setting in the event of absence of trauma or local radiation. In case of previous scar or radiation, CT orMIRI can better define the available perforators. The technique of using hand held unidirectional doppler is simple, adaptable and has a short learning curve. The accurate selection of surface markings for localisation is the key to identification. The doppler sound intensity is a direct measure of perforator flow volume. Intra operative reinforcement of doppler localisation is done to ensure vascularity. The vascularity of skin paddle after the flap harvest can be accurately checked with doppler in addition to dermal bleed.

Methods: Retrospective analysis of prospectively collected data on pedicled perforator flaps used in breast reconstruction was done. All 8 patients who underwent pedicled perforator flap partial reconstruction for breast defects were analysed. 3 patients were medial intercostal artery perforator based flaps (MICAP) and 5 were lateral thoracic artery perforator based flaps (LTAP) All underwent pre-operative localisation of perforator and flap design planning in preoperative area. Handheld doppler was used for surface marking of perforator. The skin paddle was placed around the point of maximum doppler sound. The flap was raised after the tumor excision. Neither muscle nor fascia was included and confirmation of vascularity was done using doppler intraoperatively.

Results: Of 8 flaps identified using hand held doppler, all were well vascularised in post operative period. One flap underwent partial necrosis due to venous congestion. Identification was easy and the perforators were found in their expected zones.

Conclusion(s): Handheld doppler is a reliable and economical way of identification of chest wall perforator during planning of breast reconstruction.

Conflict of Interest: No significant relationships.

P131

Comparing the temporal changes of cosmetic, QoL and patient satisfaction achieved with breast reconstruction and contralateral symmetrisation techniques. (ClinicalTrials.gov: NCT016356235)

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Goals: According to the hypothesis of the study, the results of implant-based breast reconstruction and symmetrisation following advanced postmastectomy techniques significantly decrease over time and later results limited patient satisfaction rate.

Methods: Trial design: In this response-adaptive prospective randomized study patients are sub-grouped into 6 study groups after breast reconstructive surgery with silicone implant with symmetrisation in case of unilateral mastectomy (mastopexy and/or silicone implant and/or Ultrapro mesh sling technique to suspend the breast with or without reduction) or simple mastectomy without symmetrisation. Planned number of the patients is 528 cases. The measurements of the jugulum-nipple width, nipple-midline width and nipple-IMF width, the breast ptosis, standard photo documentation using valid BCCT.core software, BREAST-Q validated questionnaire and Likert scale is performed preoperatively, 4 weeks after delayed reconstruction with symmetrisation, 3rd months, every 6 months 5 years long.

Primary endpoint of the study: Patient satisfaction associated with the symmetry achieved by different surgical techniques at one, two, three, four, and five years of follow-up. Compare the quality of life and the satisfaction rate in control group with simple mastectomy, bilateral skin-sparing mastectomy and reconstruction.

Secondary endpoints of the study: Based on the results of this study, the aim is to determine the prognostic factors, patient subgroups and surgical techniques associated with patients, surgery and oncological therapies.

Results: Inclusion criteria:

- Under the age of 65 with uni- or bilateral primary breast cancer (clinical Stage 0-III), needing advanced mastectomy independently of the axillary surgery, having immediate or delayed–immediate implant based reconstruction on the ipsilateral and symmetrisation on the contralateral side. Control group: patients under 65 years with unilateral simplex mastectomy without breast reconstruction.

Exclusion criteria: Pregnancy associated breast cancer. Prior breast surgery and/or radiotherapy. Open wound therapy due SSI.

Conclusion(s): Present accrual and target accrual: The trial was activated on 22 April 2020 and the first patient was randomized on 23 April 2020. Accrual is currently running according to protocol and is planned until 2025. Interim analysis performed after 2 years’ median follow-up period. Final analysis is performed 5 years after closing the patient inclusion period.

Conflict of Interest: No significant relationships.