



## Correspondence

### A new role for syringes in breast reconstruction: An easy and cheap dressing to protect reconstructed nipples

Dear sir,

The nipple reconstruction represents the final step in the journey of breast reconstruction and for that reason symmetry, size and projection become crucial.

Between the above mentioned parameters, projection is the least controllable by the surgeons and is due to scar contraction both on short and long term, with a final shrinkage rate of 40–60% at one year.<sup>1</sup>

As for breast reconstruction both autologous, alloplastic and combined techniques have been described, however nipple reconstruction with local flaps is still the most performed one.



**Fig. 1.** Application of the modeled 10 ml syringe barrel onto the reconstructed nipple with a non-adherent gauze interposed between its base and the skin.

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**Fig. 2.** During the first dressing change the stay sutures are removed and new barrel is placed and secured with surgical skin glue and steri-strips.



**Fig. 3.** Reconstructed nipple at one month postoperative follow-up.

Local flaps used to reconstruct nipples on the breast mound, regardless of their shape, are often harvested in scar tissue and their vascularization is not as brilliant as for native tissues<sup>2,3</sup>.

For that reason the avoidance of external pressure in the immediate postoperative time becomes extremely important, because could cause vascular impairment leading to flap necrosis and loss of projection:

Many authors have described the use of disposable low-cost materials as dressings<sup>4</sup> or surgical instruments.<sup>5</sup>

In this letter our purpose is to describe how to create a pressure-free dressing for reconstructed nipples simply using a 10 ml plastic sterile syringe.

At the end of the surgical procedure a non-adherent gauze is cut out in a shape of a donut, in the central hole of which the reconstructed nipple is placed.

A 10 ml syringe barrel is cut at the midpoint of its length and both the plunger and the needle are removed.

The base of the cut barrel is then put onto the donut shaped non-adherent gauze so that the nipple is placed inside it.

Two stitches are placed between the barrel flanges and the breast mound at level of two cardinal points placed outside the vascular territory of the harvested flaps.

The first dressing changes is performed at 3–5 days after the surgery and the stay sutures are removed.

At this point a new barrel can be applied in the same manner directly onto the skin without interposition of any non-adherent gauze and secured with surgical skin glue.

The rationale of this maneuver is to give protection to the wound area avoiding both suture marks and pressure over the breast mound.

A sterile cotton gauze could be put over the top of the barrel in order to increase the comfort of the patients.

The dressing we present has many advantages such as cheapness, sterility, availability, comfort, possibility of direct monitoring of the viability of the nipple in the early postoperative time without removal of the whole dressing and finally the possibility of application of antibiotic ointment directly inside it without undesired spills.

In the future this dressing could be successfully used also in other surgical procedures, such as correction of inverted nipples or breast duct excision.

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## Declaration of Competing Interest

None.

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