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# 3D TATTOO OF THE NIPPLE-AREOLA COMPLEX AS A COMPLETION OF BREAST RECONSTRUCTION: CASE REPORT

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**Introduction:** Reconstruction of the nipple-areola complex (NAC) is the last step in breast reconstruction after a radical mastectomy. There are several techniques to perform NAC reconstruction and the most common described involve local flaps and skin grafts. However, they depend on good vascularization at the receptor site, which is often impaired in mastectomies with prosthetic reconstruction, often associated with an irradiated tissue, increasing risk of ischemia and necrosis of the new NAC. Tattooing of the NAC is an alternative to the surgical procedures and has gained space over the years, due to its ease, rapid recovery, and low rate of complications. A tattoo consists in placing pigments in the dermis, through perforations in the skin by different combinations of needles, called cartridges. Such pigments are currently synthetic, based on iron oxides and titanium dioxides dispersed in a suspended gel, offering safety with rare adverse events.

**Case report:** Female, 62 years old, who had a modified radical mastectomy in 2008 for treatment of invasive breast cancer in another institution. In 2012, she started her follow-up at Santa Casa de Misericórdia de Belo Horizonte and had a reconstruction using a latissimus dorsi myocutaneous flap with a prosthesis, associated with skin grafting for reconstruction of the areola and papilla and a reduction mammoplasty on the left. After discussing options and understanding patients' expectations, an oval areola on the right was planned, similar to the left one. Lidocaine based topical anesthetics was applied, followed by a complete tattoo of the right NAC, using a 3D technique for the papilla. The machine used was TH PRO NeonPEN Slim<sup>®</sup> and needle cartridges 1RL, 3RL, 5RS and 7RM from the same brand. Dressing was performed with La Roche Cicaplast<sup>®</sup> ointment, covered with a plastic film, which was changed daily by the patient for 15 days, according to medical advice. After 40 days the bilateral oval shape. However, the patient was not satisfied, so we planned to transform it into a round areola. Tattooing of the round areola and retouching of details for the right papilla were performed, in addition to the left areola pigmentation, to symmetrize color and shape. Figure 3 illustrates the results 15 days after the second and last session, with similarity between color and areolar shape, as well as an effect of depth and projection on the right papilla. A subjective evaluation of outcome was carried out, with the patient claiming satisfaction with the procedure and feeling better about her breasts.