## Leffer to the Editor

## Does postoperative radiation therapy represent a contraindication to expander-implant based immediate breast reconstruction? An update 2012-2014

Dear Editor,

We appreciated the article of Ribuffo et al<sup>1</sup>, about implant-based breast reconstruction in Post-mastectomy radiotherapy.

The authors took into consideration papers edited by plastic surgeons, considering these professionists having higher sensitivity to aesthetic results and adverse effects. The article rightly cited the beneficial properties of autologous fat grafting (lipofilling) avoiding skin ulceration, capsular contracture, and implant exposure.

Our group has focused attention on lipofilling in post mastectomy pain syndrome (PMPS) and irradiated breast<sup>2,3</sup>. We would like to add our personal experience regarding the effects of radiotherapy on immediate two-stage prosthetic breast reconstruction and the sequencing of radiotherapy from the aesthetic and functional results point of view.

We begin to review our case series comparing results in irradiated and non-irradiated patients. We conducted 53 mastectomies, submitted to two-stage prosthetic breast reconstruction and which have undergone adjuvant radiotherapy. With our oncological guidelines, there is not sufficient time to complete expansion, consolidate and substitute expander with a definitive prosthesis. For these reasons we used to give radiotherapy after stage I reconstruction, interrupting tissue expansion.

Preliminary results show adverse effects of radiotherapy and higher failure rate, if compared with non-irradiation. Nevertheless, our failure rate is lower than that presented by some authors who do not use lipofilling. We suppose that better outcomes are related to the use of lipofilling adopted during stage II reconstruction, or three months before this procedure, in the patients who reveal the most serious radiation sequelae. We apply lipofilling on breasts irradiated after stage I reconstruction for scar treatment<sup>4,5</sup> and PMPS treatment.

Radiotherapy on permanent implant can alter the result of the reconstruction, increasing for examples capsular contracture rate. Operating irradiated breast improves the aesthetic result, since the tissue will undergo minor variations. Lipofilling increases reconstructive outcome and patient satisfaction, and we believe this practice adds a fundamental surgical step in breast reconstruction.

## **Conflict of Interest**

The Authors declare that they have no conflict of interests.

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