Editorial

Immediate breast reconstruction: does the pathology affect the reconstruction?

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Abstract: Immediate breast reconstruction is related to many factors like type of mastectomy, desire of the patient but pathology is not included which should be encountered in decision making in immediate breast reconstruction.

Key Words: Breast reconstruction; padiotherapy; pathology

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Although the screening mammogram succeeded in finding many cases of early breast cancer which can be managed early by conservative breast surgery with or without oncoplastic techniques, mastectomy remains an important option for breast cancer and with the revolution of skin sparing mastectomy (SSM) and nipple sparing mastectomy (NSM), immediate breast reconstruction is increasedly demanded by the patients and the surgeouns (1).

Immediate breast reconstruction can be served in two ways either autologous flaps or implants based reconstruction and this depends on many factors as type of surgery (e.g., NSM, SSM, modified radical) and the medical history of the patient (Diabetic, Smoker) and the local circumstances after mastectomy (e.g., pectoral fascia) and laterality (unilater or bilateral) and the patients preferance (e.g., refused implants) and also the need of postoperative radiotherapy. Implant-based approaches are simpler to perform, avoiding the potential morbidities associated with the donor site, and can be offered to thin women who do not have adequate autologous tissue in potential donor sites. Also tissue expander can be placed between the chest wall musculature and serially inflated until an appropriate tissue envelope is created, at which time the expander is replaced with a permanent implant while autologous reconstructions are commonly performed using a transverse rectus abdominis myocutaneous (TRAM) flap. Alternatively, a latissimus dorsi flap or a flap based on the deep inferior epigastric perforator (DIEP) artery or gluteal arteries can be used for the reconstruction. In general, immediate reconstructions are accompanied by a skin-sparing mastectomy, thus preserving sensate skin and a natural inframammary sulcus for the reconstruction (2-4).

Postoperative radiotherapy negatively impacts on the results of breast reconstruction. However, the rates of complications as well as the aesthetic outcomes vary depending on the timing of the radiation therapy in relation to the reconstruction as well as on the type of reconstruction employed. Postoperative radiotherapy can affect the implant, so the use of expanders are preferred in these situations. Postoperative radiotherapy increases the chance of capsular contracture for this reasons some surgeouns prefer the use of autologeous breast reconstruction as an immediate breast reconstruction which can sometimes affected by the radiotherapy. Complications of infection of tissue expanders and implants in the setting of radiation can usually be salvaged by temporary removal of the implant followed by delayed reconstruction with an implant and a latissimus dorsi myocutaneous flap, which provides healthy, well-perfused tissue to cover the implant and replaces some of the radiation damaged skin (5,6).

Therefore the decision of reconstruction will depend on if the patient will receive radiotherapy or not. Radiotheray can be given in two ways as intraoperative radiotherapy (ELIOT) or postoperative radiotherapy either local or locoregional depending upon the lypmph nodes (if more than 3 metastatic lymohnodes the patient will take locoregional radiotherapy). From previous we can conclude that radiotherapy is decided after the complete pathological analysis of the axilla if sentineal lymph node is postive, but if sentineal lymph node is negative radiotherapy will not received by the patient. So, metastasis to lymph nodes is not predictable except in the cases of pure in situ carcinoma as Ductal carcinoma insitu (DCIS) that is the only pathology which doesn't metastasize to lymphnodes only if it is mixed with invasive pattern. So during mastectomy for DCIS, it is better to do sentineal lymonode biopsy to exclude invasive pattern (7,8).

Inflammatory breast cancer is a distinct clinical entity within breast cancer that warrants urgent and aggressive treatment with neoadjuvant chemotherapy followed by multimodality locoregional therapy, it has a very bad prognosis and usually doesn't need immediate breast cancer and needs delayed breast reconstruction (9).

Another rare type of pathology is the breast phylloide which represent 1% of all breast cancer and may reach a very large size (up to 10 cm). At this type mastectomy with immediate breast reconstruction is valid as the patients don't recieve radiotherapy except if the tumor is more than 5 cm or mixed with invasive carcnoma or there is lymphn node metastasis (10).

So, we can coclude that pathology is important to decide the type of mastectomy, predict prognosis and not important for type of reconstruction except in the cases of pure DCIS or breast phylloide or invasive carcinoma with negative sentineal lymph node, the surgeoun can do immediate breast reconstruction. On the contrary, inflammatory breast cancer is impossibile.

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References

1. Mallon P, Feron JG, Couturaud B, et al. The role of nipple-sparing mastectomy in breast cancer: a comprehensive review of the literature. Plast Reconstr Surg 2013;131:969-84.
2. Paget JT, Young KC, Wilson SM. Accurately costing unilateral delayed DIEP flap breast reconstruction. J Plast Reconstr Aesthet Surg 2013;66:926-30.
3. DellaCroce FJ, Wolfe ET. Breast reconstruction. Surg Clin North Am 2013;93:445-54.
4. Agrawal A, Sibbering DM, Courtney CA. Skin sparing mastectomy and immediate breast reconstruction: a review. Eur J Surg Oncol 2013;39:320-8.
5. Yang TJ, Ho AY. Radiation therapy in the management of breast cancer. Surg Clin North Am 2013;93:455-71.
6. Afolabi OO, Lalonde DH, Williams JG. Breast reconstruction and radiation therapy: A Canadian perspective. Can J Plast Surg 2012;20:43-6.
7. Pestana IA, Campbell DC, Bharti G, et al. Factors affecting complications in radiated breast reconstruction. Ann Plast Surg 2013;70:542-5.
8. Blitzblau RC, Horton JK. Radiotherapy after mastectomy. Surg Oncol Clin N Am 2013;22:563-77.
9. Schairer C, Soliman AS, Omar S, et al. Assessment of diagnosis of inflammatory breast cancer cases at two cancer centers in Egypt and Tunisia. Cancer Med 2013;2:178-84.
10. Parfitt JR, Armstrong C, O'malley F, et al. In-situ and invasive carcinoma within a phyllodes tumor associated with lymph node metastases. World J Surg Oncol 2004;2:46.

