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## Criteria for indication of breast reconstruction

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Breast reconstruction has been affirmed as part of the treatment for locally advanced breast tumor, and the development of new techniques has been providing better results and widening surgical indications. The objective of this work was to establish and discuss the different criteria that are related to this indication, mainly in what refers to the timing for the procedure. Oncological, clinical and psychological aspects are evaluated according to experience accumulated in recent years, with immediate and delayed reconstruction, carried out in the most diverse specialized centers. The authors conclude that, in reference to the safety and benefits of immediate reconstruction, it would be indicated for any patient who wants it and presents favorable clinical and psychological conditions, without having any absolute contraindication from the oncological point of view.

**UNITERMS:** Breast cancer, mastectomy, breast reconstruction.

**D**ecision to carry out immediate or delayed breast reconstruction, has become a personal option between the patient and the medical team. Recent technical advances in this area, have produced quite elaborate results from the esthetics point of view, in the last 20 years, with an important decrease of morbidity, which has undoubtedly positioned reconstruction as an active part in breast cancer treatment. In this context, the ideal opportunity for immediate or delayed surgery has received particular attention in specialized centers, whose accumulated experience already offers us support for a conclusive information.

The objective of the authors of this work was to establish and discuss the criteria applied and the present tendencies for the indication of post-mastectomy reconstruction.

### **Oncological criteria**

Observation of the biological behavior of breast tumors, to discover eventual consequences caused by an

immediate or delayed reconstruction surgery following amputation, is essential from the oncological point of view. The following factors should be considered:

### **Clinical staging**

Stages I and II present better prognosis and encounter less resistance to immediate reconstruction (23,25).

### **Histologic type**

Intraductal, papillary, colloid and lobular adenocarcinomas, as well as low malignancy sarcomas, are the stock for better prognosis (1).

### **Oncological resection**

Radical resection should never be impaired in order to facilitate reconstruction, precisely because the vast variety of techniques available today, is perfectly adaptable to any local conditions of thoracic sequelae.

The areolar-mammillary complex, as well as the fascia, musculature and skin, must be adequately resected whenever necessary for tumor control. In this sense, the presence of a team of plastic surgery for immediate reconstruction following mastectomy, can follow strictly these oncological principles more easily (2,6,16,20,26).

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### **Immunologic response**

There are no scientifically-proved evidence that implantations or even additional surgical reconstruction, interfere in the patient's immunity, in relation to the clinical behavior of the tumor (27,28).

### **Adjuvant therapy**

The different studies have shown that there are no delays or impairments for post-operational radio and chemotherapy, with immediate reconstruction techniques used at present. No increase in surgical complications were observed during chemotherapy, although it is known that when they are present, they can make handling difficult. Similarly, implantations do not interfere with the efficiency or morbidity of radiotherapeutic treatment (4,15,21).

### **Recurrences**

There are no indications that immediate reconstruction could mask recurrences to the point of impairing clinical and laboratory diagnosis, or even its treatment.

Observation of residual skin, main local recurrence site, continues to be possible with immediate reconstruction techniques; submuscular implantations permit palpation of possible nodulations above muscular level; laboratory screening is not made difficult through the presence of prosthesis or residuals in the mastectomy site. On average, local recurrences occur after 18 to 36 months; however, to wait this long to indicate reconstruction is not justified, since these do not alter the patients' overall survival. (3,7,13, 14,18).

### **Survival**

Experience clearly shows that breast reconstruction, whether immediate or delayed, does not alter survival rate in breast cancer (5,11,17,24,29).

### **Psychological criteria**

In order to have a reliable analysis of the patient's psychological posture vis-à-vis possible reconstruction of her breast, it is necessary to provide her with simple information about real possibilities and technical, oncological and clinical restrictions. It should be avoided that the natural anxiety of the patient and her family, be increased by false concepts derived from non-professional sources (19).

Breasts represent an organ of unparalleled importance in the context of feminine personality, as well as the patient's wish to have her breast reconstructed, is healthy, not meaning a lack of adaptation (10,12). It is directly proportional to the degree of information, and not to the social-economic level, as it has already been suggested. It is not necessary for the patient to experience deformity in order to value reconstruction; on the contrary, delayed re-

construction presents a more critical posture, although the degree of post-operative satisfaction is similar in both cases (8).

Studies have been unanimous in showing superiority in psycho-emotional adaptation of patients with immediate reconstruction. Everything indicates that, in the critical post-operative period of mastectomy, the sensation of "loss" is replaced by one of "exchange", with significant decrease in psychological trauma, thus favoring a better and quicker reintegration of the patient to her home and community (22,30).

### **Clinical criteria**

Any elective surgical intervention presupposes a careful evaluation of clinical and laboratory conditions, mainly in what refers to associated disease and the patient's overall condition. Global analysis of these factors must guide the choice of techniques of major or minor surgical morbidity, and still contraindicate an additional temporary or definite reconstruction procedure (9).

## **CONCLUSIONS**

1. Immediate breast reconstruction does not interfere with the course or prognosis of breast cancer; therefore, contraindications from the oncological point of view, are relative, being able to become absolute through unfavorable clinical or psychological conditions.
2. Indication of immediate reconstruction must take a risk/benefit relation into account, where the patient's degree of motivation, as well as possible psychological advantages, are very relevant to life quality.
3. Once a delayed reconstruction has been chosen, there should be coherence with the factors that led to this postponement. Analyses of these criteria, applied to the risk/benefit relation, should indicate the appropriate moment for surgery.
4. In spite of increasing enthusiasm for immediate reconstruction, documented in the literature, its indication should not be indiscriminate, but based on a discerning analysis of the factors herein mentioned.

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## RESUMO

A reconstrução mamária tem se firmado como parte integrante do tratamento do câncer localmente avançado da mama, e o desenvolvimento de novas técnicas vem propiciando melhores resultados e ampliando as indicações cirúrgicas. O objetivo deste trabalho foi estabelecer e discutir os diversos critérios que pesam nesta indicação, principalmente no que se refere a oportunidade ideal para o procedimento. Os aspectos oncológicos, clínicos e psicológicos são avaliados segundo a experiência acumulada nos últimos anos, com reconstruções imediatas e tardias realizadas nos mais diversos centros especializados. Os autores concluem acerca da segurança e dos benefícios da reconstrução imediata, que estaria então indicada a qualquer paciente que a deseje e apresente condições clínicas e psicológicas favoráveis, sem que haja contra indicação absoluta do ponto de vista oncológico.