

### **Contralateral Prophylactic Mastectomy in Patients with Breast Cancer**

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#### **Abstract**

*Introduction:* The rate of contralateral prophylactic mastectomy (CPM) increased within the recent years. The main reasons are: genetic testing, availability of breast reconstruction, more often use of preoperative breast MRI, improvement of postoperative aesthetic results and reimbursement of breast reconstruction. The purpose of this study was to analyze the indication of CPM, it's evolution and the surgical techniques used for this type of surgery.

*Materials and Methods:* This prospective study enrolled patients with unilateral breast cancer for which conservative treatment was not an option and underwent CPM concomitant with therapeutic mastectomy, using different techniques, followed by immediate breast reconstruction using alloplastic materials.

*Results:* A total of 45 patients with unilateral breast cancer underwent therapeutic mastectomy and CPM followed by immediate breast reconstruction, between January 2015-December 2020. The mean age was 43.5 years, 64,44% patients had stage I and II breast cancer and 22,22% were triple-negative. The indications for CPM were: pathogenic mutation of BRCA or of other genes associated with high risk of breast cancer, strong family history, suspicious findings on breast MRI, extended micro-calcifications, dense breasts, and extreme anxiety.

*Conclusions:* A growing rate of bilateral mastectomy for unilateral breast cancer was observed. Availability of immediate breast reconstruction and reimbursement plays an important role for patients in choosing CPM. Factors associated with CPM include: young age, pathogenic BRCA mutation, significant family history and triple-negative disease. The rate of immediate postoperative complications was low. CPM is a valid option to reduce the risk of contralateral breast cancer and to achieve a good aesthetic outcome for patients with unilateral breast cancer with high risk of contralateral breast cancer.

**Key words:** breast cancer, contralateral prophylactic mastectomy, BRCA, breast reconstruction