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# BREAST CONSERVING SURGERY WITH GEOMETRIC COMPENSATION TECHNIQUE: NEW INDICATIONS, ONCOLOGICAL SAFETY, AND COSMESIS

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**Objective:** Geometric compensation technique (GCT) enables breast conserving surgery (BCS) in selected patients with large tumor for their breast sizes and/or in unfavorable sites, initially candidates to mastectomy. The aim was to evaluate indications, oncological safety, and cosmesis and to increase the number of patients undergoing GCT. **Methods:** Approved by Ethics Committee 1594/2018. A longitudinal cohort study was performed in patients with breast cancer who underwent GCT consecutively. We evaluated retrospectively: indications, clinical characteristics, cosmesis, surgical features, and recurrences. Prospectively breast satisfaction by patients and cosmesis by BCCT.core software, Harris/Harvard, and Garbay scales were evaluated. Descriptive statistics were performed, chi-square test was used to compare aesthetic outcomes; Kaplan–Meier model evaluated follow-up and recurrence. **Results:** It is the second largest world casuistic from one single institution: 36 patients were evaluated, 34 (94.4%) underwent GCT, 26 (72.2%) with medium/large breasts with or without ptosis, 7 (19.4%) with small breasts with or without ptosis, a profile undergoing GCT not previously identified in the literature. The mean tumor clinical size was  $3.65 \pm 1.59$  cm. All margins had no ink on tumor. Frozen section biopsy guided a change from quadrantectomy to mastectomy in two patients (5.6%) because margins were positive. Most patients had no postoperative complications, without delay to start adjuvant treatment. Mean follow-up time was  $36.6 \pm 16.8$  months, with no local recurrences. According to BCCT.core, the postoperative aesthetics was good in 17 (51.5%) patients and 11 (33.3%) was reasonable, and 18 patients (54.5%) self-rated it as excellent and 11 (33.3%) as good. **Conclusion:** GCT is an oncologically safe and aesthetically satisfactory option of BCS and it has been extended to patients with small and medium breasts with ptosis, and large tumors to breast volume or in unfavorable resection sites, initially candidates for mastectomy.

**Keywords:** Breast Neoplasms; Segmental Mastectomy; Plastic Surgery; Mammoplasty; Conservative Treatment.