Aims: Prediction of a bad result after conventional BCCT could lead to alternative surgical options. Using an ongoing study on classic BCCT (BCCT.prediction) we tried to predict the aesthetic outcome.

Methods: Face-view digital photographs of 33 patients, taken before and 30 days after surgery, were assessed with BCCT.core® to extract asymmetry measures: Breast Compliance Evaluation (BCE); Breast Retraction Assessment (BRA); Upward Nipple Retraction (UNR); Breast Contour Difference (BCD); Lower Breast Contour (LBC); Breast Overlap Difference (BOD). Clinical data included: 1) patient height, weight, thoracic perimeter and bra size; 2) tumour size/location and specimen size/weight; 3) surgeon expertise, incision size/location and flap rotation. A regression model using asymmetry measures combined with clinical data was applied to predict asymmetry on the 30th postoperative day. Agreement between predicted and real asymmetries was calculated using the Linear Coefficient Correlation (p [1: highest agreement]).

Results: A moderate performance was obtained: BCE(p=0.55), BRA(p=0.65), UNR(p=0.65), BCD(p=0.73), BOD(p=0.81) and LBC(p=0.85).

Conclusions: The algorithm was capable, with moderate agreement, to predict 30th postoperative day asymmetry measures. Validation of this model implies a larger population.