

DIEP in Slim Patients

Background: Slim patients who undergo breast reconstruction are known to have limited donor site availability. This study compares outcomes and complications of abdomen-based free flaps for breast reconstruction between slim and non-slim patients.

Methods: Between March 2000 and December 2015, patients who underwent abdomen-based microsurgical breast reconstruction were retrospectively evaluated. Patients were categorized into slim or non-slim groups based on a body mass index (BMI) of <24 or >24 respectively. Patients who underwent bilateral breast reconstructions, implant reconstruction, or a simultaneous contralateral balancing procedure were excluded. The primary outcomes studied were flap survival rates and flap usage percent. Secondary outcomes were any acute, subacute, and late complications.

Results: 335 deep inferior epigastric perforator (DIEP) flaps, 18 superficial inferior epigastric artery (SIEA) flaps, and 21 free transverse rectus abdominus muscle (TRAM) flaps for a total of 374 flaps were used in unilateral breast reconstructions. 193 and 181 flaps were used in immediate and delayed reconstructions, respectively. 257 (68.7%) patients had a BMI < 24. The mean flap usage percent in the slim group was $81.5 \pm 11.9\%$ (range: 48-100). Mean ischemia time in the slim group and non-slim group differed significantly at 79.5 ± 21.4 minutes and 85.7 ± 27.8 minutes respectively ($p < 0.01$). There was no statistical difference in all complications.

Conclusions: Abdomen based autologous reconstruction, particularly for DIEP, is a valid and safe reconstructive option for slim patients, with high flap success rates and minimal complications.