

Applications of The Combined Transverse Upper Gracilis and Profunda Artery Perforator (TUGPAP) Flap

Pedro Ciudad, MD, PhD; Oscar J Manrique, MD; Ketan M Patel, MD; Mouchammed Agko, MD; Federico Lo Torto, MD; Hung-Chi Chen, MD, PhD.

INTRODUCTION: The transverse upper gracilis (TUG) and the profunda artery perforator (PAP) flaps have been described for breast and perineum reconstruction. However, the abdomen is considered one of the primary donor sites to reconstruct these areas. However, when abdominal tissue is not available, other donor sites such as the thighs or buttocks should be considered. The aim of this study is to describe our experience using the combined TUGPAP flap,^{1,2} for breast and perineum reconstruction.

MATERIALS AND METHODS: Between January 2011 and June 2013, all patients who required breast or perineum reconstruction using the TUGPAP were recorded. All patients with previous abdominal surgery or lack of adequate donor abdominal site tissue were excluded. All TUGPAP flaps were based on two pedicles: the ascending branch of the medial circumflex femoral artery (TUG) component, and the profunda artery perforator itself for the (PAP) component. Demographics, etiology of reconstruction, flap harvest time and complications were analyzed.

RESULTS: A total of 13 combined flaps were performed: 10 free flaps for immediate unilateral breast reconstruction and 3 pedicle flaps for perineum reconstruction. There were 3 men and 10 women. The mean size of the harvested skin paddle was 28.6 x 8cm² (range, 27 x 37 cm² to 30 x 39cm²). The average flap harvest time was 102 minutes (range, 95 to 120 minutes). The average pedicle length for the TUG flap was 7 cm (range: 6–8 cm) and for the PAP flap was 9 cm (range: 8.5–10 cm). The flap survival rate was 100% and no partial flap loss was reported. No major complications were seen. However, there was one case of persistent donor site seroma, which was managed conservatively.

CONCLUSION: When abdominal tissue is not available, the TUGPAP flap is an alternative flap for medium to large breast reconstruction and extensive perineum defects. The good pedicle length, large skin paddle and the versatility of design, makes this flap a good alternative. In addition, the TUGPAP flap can be used for other kind of reconstructions when there are limited soft tissue donor sites and large tissue volume is required. However, appropriate patient selection is important in order to obtain good results.

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