# Medial sural artery perforator flap a practical way of optimizing the harvesting procedure.

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INTRODUCTION: The medial sural artery perforator (MSAP) flap is a versatile reconstructive option. Its' clinical use has been limited mainly due to the tedious intramuscular preparation of the minute perforators and the inconvenient surgeon's position during the harvesting. We present an advantageous modification of the standard positioning. Our modification leads to a favorable engorgement of the flap pedicle and perforators, allows harvesting without the need of a tourniquet and also improves the surgical field accessibility for the surgeon. This is an easily applicable and effective way to increase comfort, ease and safety during the flap dissection.

MATERIALS AND METHODS: During 2012-2014, we have performed 31 MSAP fasciocutaneous flap reconstructions in 30 patients (Table 1). ***Our suggested modification:*** The patient is positioned supine on the surgical bed, with the knee flexed and the hip joint in abduction. We suggest a modification of the standard positioning, by further introducing several folded surgical towels, as a bulky support, under the calf, so as to push the calf medially as much as possible (Picture 1). The dissection is undertaken firstly in a subfascial plan to identify the perforators, and then intramuscularly in a retrograde fashion to the medial sural artery. ***No tourniquet*** is applied in our method.

RESULTS: All our flaps were successfully harvested. At least one perforator was inspected and dissected in every case. There were no complications associated with damage of the perforators or the pedicle of the flap during the harvesting. A sole flap failure occurred after the 3rd postoperative day, and was attributed to mechanical pressure of the pedicle. Another MSAP was finally successfully used in that case.

CONCLUSION: The MSAP flap is a valuable, advantageous in many cases, reconstructive option in the armamentarium of the plastic surgeon. By applying our suggested modification, the surgeon could harvest with ease and comfort this flap, overcoming its main drawbacks. It is an easily applicable and effective method, which could potentially reduce both operating time and overall complication rates and increase the preference of more surgeons for the MSAP flap in the future, turning it into a workhorse flap in specific reconstructive fields.