Comment on "Meshed keystone flap: A last-step modification to reduce tension and cover a larger surface"

To the Editor: We read with interest the article "Meshed keystone flap. A last-step modification to reduce tension and cover a larger surface" by Miguel et al.[1]

A keystone flap is a perforator island flap, described by Behan in 2003.[2] Its vascularization is based on random fascial and muscular perforators. To be reliable, its long axis must be parallel to the adjacent angiosome boundaries and neurovascular structures.[3,4] It is a simple, robust, efficient, and versatile flap.[2] The keystone flap does not change the final scar position and does not impair possible revision surgery. Therefore, it can be used at the same operative time as the excision of a malignant cutaneous tumor, even without histologic confirmation of negative margins.[5]

In the original technique, an adipofasciocutaneous flap is harvested, and deep fascia can be left intact for small lesions (up to 2 cm). When increased mobilization is required, the lateral deep fascial margin is incised (Fig 1, green line). Some investigators have proposed a modified keystone flap including a complete incision of the deep fascia (Fig 1, green and grey lines). Keystone flap inner vascularization is based on the prefascial and subfascial plexus but also on the subdermal and dermal plexus (Fig 2). When the deep fascia is divided, the dermal plexus must be preserved to avoid blood supply insufficiency. Even if the meshing method provides a wider surface coverage, it harms the dermal plexus and includes a nonnegligible risk of partial or total flap necrosis.

In this article, did the surgeon divide the deep fascia? Did the authors experience any flap necrosis?

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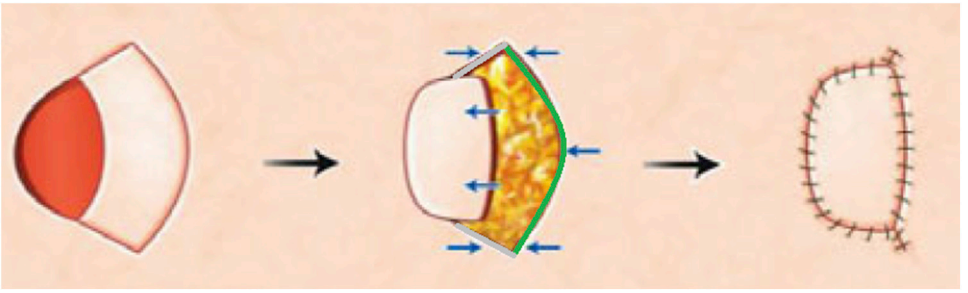

Fig 1. Modified keystone flaps, with incision of the lateral deep fascial margin (green line) or complete incision of the deep fascia (green and grey lines).

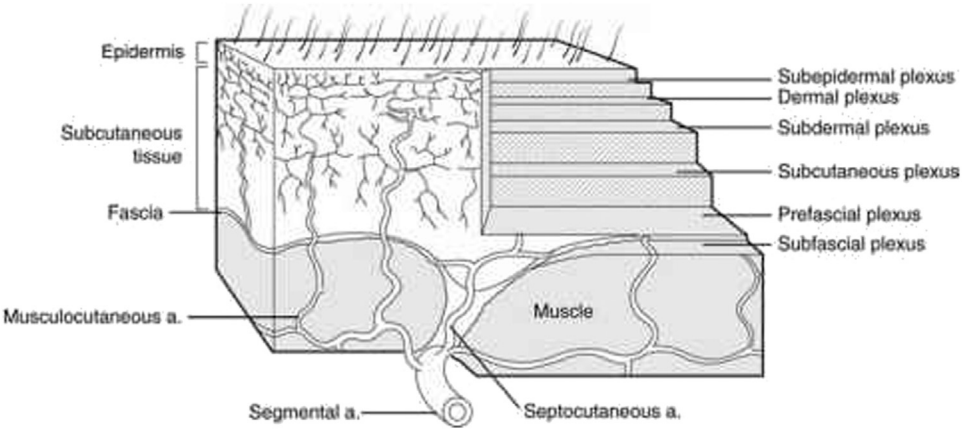

Fig 2. Blood supply of the skin and subcutaneous tissue.

Conflicts of interest: None disclosed.

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Reprints not available from the authors.

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