

Letter to the Editor

**The Butterfly Design as an alternative to the “Double-A” bilateral flaps for the treatment of large sacral defects**

*Sir:*

We enjoyed reading the article “A new technique of “Double-A” bilateral flaps based on perforators for the treatment of sacral defects” by Prado et al (1).

The Double-A bilateral flap is presented as a combination of bilateral perforator fasciocutaneous and myocutaneous flaps. Segmental cutaneous innervation can be preserved and protective sensibility is likely to be provided. The authors write that the Double-A flap is “the ideal solution for neurologically intact patients”. The flap was successfully used in the treatment of large sacral ulcers in 30 patients. A 90 percent follow-up at 1.5 years showed no recurrence. It appears that the authors have come up with a very reliable method for the treatment of large sacral ulcers.

They are to be congratulated for having managed to add a new and reliable surgical procedure for the treatment of large sacral defects. There is no doubt that treatment of non ambulatory as well as ambulatory patients with large sacral defects is a challenge to the reconstructive surgeon. In 1956 Conway and Griffith reported some fundamental principles for the management of pressure sores (2). The flap should have a reliable circulation. Scars should not be placed over the site of the original ulcer, and the scar should not be subjected to repeated trauma. The flap should be made as large as possible, so that if recurrences happen, the same flap can be used again without interference from the scar. We believe that these

principles should still be applied. One may add that whenever possible, protective sensibility should be provided as well.

The Double-A bilateral flaps are large flaps with reliable circulation and may provide protective sensibility in the reconstructed area. As mentioned by the authors, one of the drawbacks of this technique is that the scars are positioned over bony prominences, the ischial tuberosities. The ischial tuberosity is a site of predilection for pressure sores. In ambulatory as well as non ambulatory patients, one would be reluctant to place scars in this area. We also agree with the authors that using the Double-A flap interferes with future use of gluteal flaps in cases of recurrences.

Even though the Double-A flap appears to be a good option for the treatment of large sacral defects, we would like to draw the authors' attention towards an alternative, the Butterfly Design (3). This design is based on the use of two lumbar artery perforator flaps placed in the configuration of a butterfly (figure 1). The cutaneous nerves emerging together with the perforating arteries can be included in the flap. The Butterfly Design provides a large volume, may provide protective sensibility in reconstructed area and causes minimal donor site morbidity. These lumbar artery perforator flaps are harvested from the love handle areas, no scars are made over the ischial tuberosities and the gluteal area is still available as a donor site for future reconstructions. Unlike the double-A flap which is composed of myocutaneous as well as a fasciocutaneous flaps, the Butterfly Design is solely based on perforator flaps. Recent research has indicated that the capacity to heal wounds is similar for myocutaneous and perforator flaps (4).

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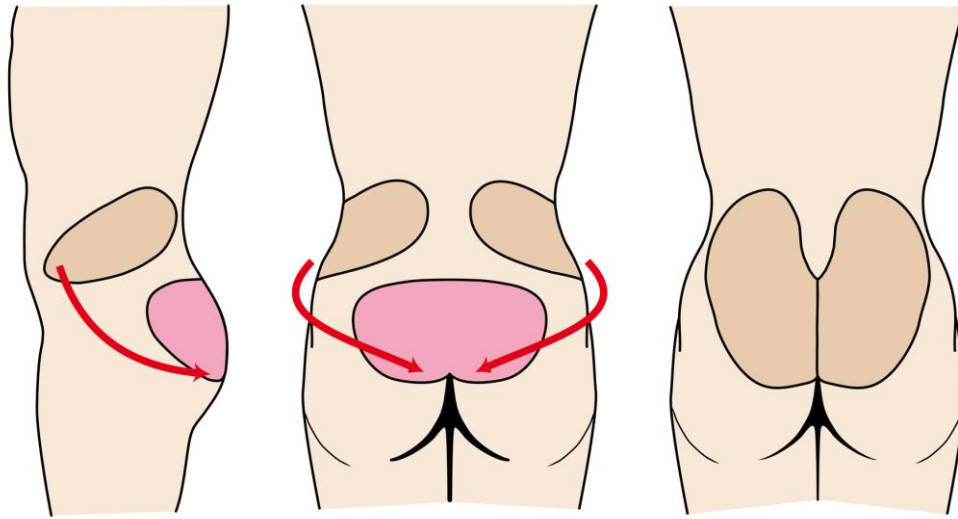
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## References

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**Figure 1**

The Butterfly Design. Transposition of two lumbar artery perforator flaps to a sacral defect.