MEETING PROCEEDINGS
2015 SICPRE Congress Young Plastic Surgeon Best Abstracts

Perineal Flap Reconstruction after Oncologic Resection

Erich Fabbri, MD
Veronica Vietti Michelina, MD
Riccardo Villani, MD
Giorgio D'Angelo, MD
Elisa Antoniazzi, MD
Valeria Summo, MD
Paolo Giovanni Morselli, MD
Federico Contedini, MD
Riccardo Cipriani, MD

BACKGROUND

Surgical treatment of perineal cancers can lead to extensive demolition, which represents a challenge for the reconstructive surgeon.

Complications after primary perineal wound closure are common due to local tension, large pelvic dead space after the oncologic resection, a contaminated field, and frequent conjunction with neoadjuvant chemoradiation.[1,2]

METHODS

Patients who underwent abdominoperineal resections for anorectal or vulvovaginal cancer were retrospectively analyzed. We include all the patients who could not be repaired by direct closure due to excessive skin tension. We assessed the different flaps used, the surgical complications rate, wound healing, or the progression to chronic wounds.

RESULTS

We identified 20 patients who underwent this procedure in the last 10 years.

The flaps used were all fasciocutaneous, either in a random or perforator fashion.

Our first choice for defects of the external vulvar region or the perineum area was lotus petal flap (Figs. 1, 2).[3]

Second, we used vertical deep inferior epigastric artery perforator flap if there was a large dead space to fulfill or a defect involving the vaginal wall.[4]

If the deep inferior epigastric artery perforator flap would be too thick or not available according to previous abdominal surgeries, we used the anterolateral thigh flap.[5]

In some other cases where the lotus petal flap was not available due to poor local conditions (radiotherapy damage) and the defect was small, we used local random fasciocutaneous flaps from the gluteal or the medial thigh region.[6]

We reported no major complications necessitating intervention, and there were no complete flap necrosis or reconstructive failures. All the cases of partial flap loss (approximately 20%) healed by second intention without important scarring retraction. We assessed no progression to chronic wounds.

From the Department of Plastic and Reconstructive Surgery, S. Orsola-Malpighi University Hospital, Bologna, Italy.
Presented at the 64th Annual Meeting of the SICPRE, September 17–19, 2015, Milan, Italy.

Plast Reconstr Surg Glob Open 2016;4:e657; doi:10.1097/GOX.0000000000000638; Published online 18 March 2016.

SICPRE: La SICPRE, Società Italiana di Chirurgia Plastica Ricostruttiva ed Estetica, national meeting, in Milano, Italy on September 17–19, 2015.

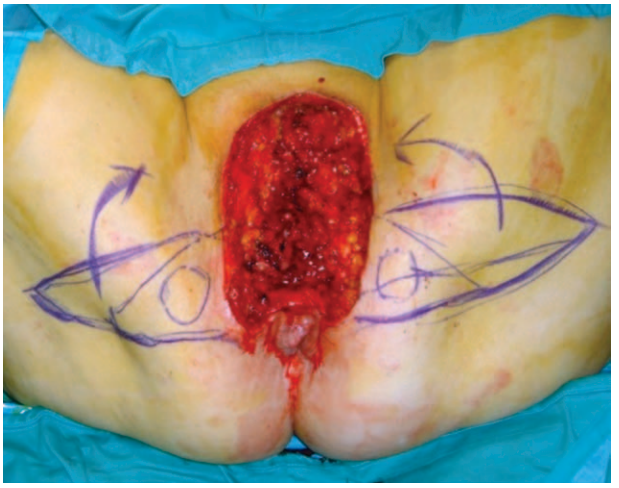

Fig. 1. Complete vulvar defect: a reconstruction with bilateral lotus petal flap is scheduled.

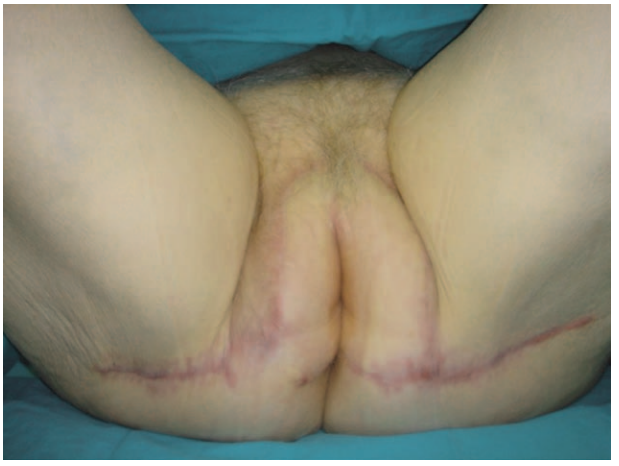

Fig. 2. View showing the result 6 months after surgery.

Disclosure: *The authors have no financial interest to declare in relation to the content of this article. The Article Processing Charge was supported by a grant of Egle Muti MD, in memory of Professor Aldo Fontana, MD.*

CONCLUSIONS

Reconstruction of the perineal region could be a very challenging procedure. Different flaps could be used according to local conditions and the entity of the resection. For wide defects, prior publications have demonstrated a lower rate of local wound complications and shorter hospital length of stay in patients undergoing immediate flap coverage.[2] Our results are comparable with those of the literature. Moreover, we prefer the use of fasciocutaneous flaps rather than muscle flaps to reduce donor-site morbidity.

Fabbri Erich
Department of Plastic and Reconstructive Surgery
S. Orsola-Malpighi University Hospital
via Massarenti 9, 40138 Bologna, Italy
E-mail: erich.fabbri@gmail.com
or
Contedini Federico
Department of Plastic and Reconstructive Surgery
S. Orsola-Malpighi University Hospital
via Massarenti 9, 40138 Bologna, Italy
E-mail: federico.contedini@aosp.bo.it

REFERENCES

1. Kolehmainen M, Suominen S, Tukiainen E. Pelvic, perineal and genital reconstructions. *Scand J Surg.* 2013;102: 25–31.
2. Wang ED, Conkling N, Xu X, et al. Perineal flap reconstruction following oncologic anorectal extirpation: an outcomes assessment. *Plast Reconstr Surg.* 2015;135: 176e–184e.
3. Yii NW, Niranjan NS. Lotus petal flaps in vulvo-vaginal reconstruction. *Br J Plast Surg.* 1996;49:547–554.
4. Fang BR, Ameet H, Li XF, et al. Pedicled thinned deep inferior epigastric artery perforator flap for perineal reconstruction: a preliminary report. *J Plast Reconstr Aesthet Surg.* 2011;64:1627–1634.
5. Zelken JA, Aldeek NF, Hsu CC, et al. Algorithmic approach to lower abdominal, perineal and groin reconstruction using anterolateral thigh flaps. *Microsurgery* 2016;36:104–14.
6. Smeets L, Hendrickx B, Teo TC. The propeller flap concept used in vaginal wall reconstruction. *J Plast Reconstr Aesthet Surg.* 2012;65:629–633.