

Case Report

Perineal reconstruction with V-Y advancement flap at the general hospital of Mexico: a case report

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ABSTRACT

Extramammary Paget's disease represents a rare entity whose only definitive management is resection, resulting in significant raw areas requiring reconstruction by the plastic surgeon. Currently, bilateral gluteal advancement VY fasciocutaneous flaps have been for some time one of the best options for perineal reconstruction, allowing for adequate coverage, low morbidity at the donor site, and satisfactory aesthetic and functional outcomes. In this study, we report the performance of a bilateral VY advancement flap for perineal reconstruction in the Plastic and Reconstructive Surgery Department of the General Hospital of Mexico.

Keywords: Perineal Paget's disease, VY advancement flap, Perineal reconstruction

INTRODUCTION

Perianal Paget's disease is characterized by being an intraepidermal adenocarcinoma that predominantly affects the nipple area and occasionally presents in other extramammary apocrine areas. The perianal region accounts for approximately 20% of extramammary cases and constitutes approximately 1% of all perianal neoplasms.¹ Perianal Paget's disease is a rare entity that mainly affects elderly women, whose symptoms are difficult to manage, and the only definitive therapy is resection of the affected area.² This entails leaving significant raw areas both in extension and depth as a result, making reconstruction, especially of the perineal and perianal areas, a challenge for the plastic surgeon. Since its induction several decades ago, immediate reconstruction of perineal defects has shown a decrease in morbidity, clinical improvement, shorter recovery time, and rapid patient reintegration into daily life.³ Among the most popular reconstruction methods are the pedicled

myocutaneous flap of the rectus abdominis, the free gracilis flap, and above all, the advancement or rotation of fasciocutaneous gluteal flaps, which are preferred by many surgeons due to their easy design, low morbidity of the donor area, and excellent results.⁴

CASE REPORT

A 73-year-old female patient with a history of long-standing systemic arterial hypertension presented to the Plastic, Aesthetic, and Reconstructive Surgery Department of the General Hospital of Mexico. She was referred by the gynaecology department after experiencing pruritus and a burning sensation in the perianal area for the past year, which progressed to perianal Paget's disease. Physical examination revealed dermatitis characterized by erythema, elevation, and desquamation on the perineal surface (Figure 1), with no involvement of the anal sphincter.



Figure 1: Perianal Paget's disease.



Figure 2: Raw area following resection of perianal Paget's disease.

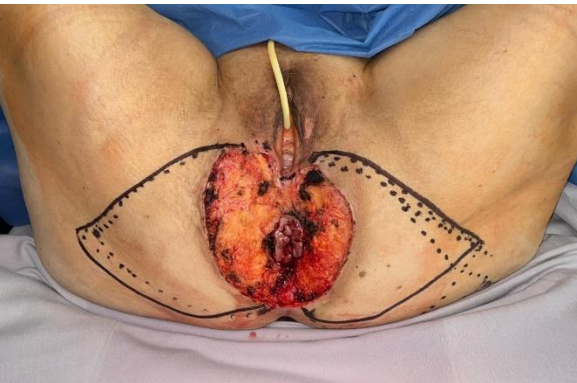


Figure 3: Design of the VY advancement flap.

The surgery was performed in two stages. The first stage involved resection of the affected surface by the oncological gynecology service, resulting in an oval-shaped raw area on the perineal and perianal surfaces measuring approximately 12x8 cm (Figure 2). Subsequently, perineal reconstruction was carried out using a double VY advancement fasciocutaneous flap. Surgical marking was performed with two triangles adjacent to the defect. Two lines were drawn from the upper and lower limits of the defect towards the greater trochanter, forming the vertex of the triangle (Figure 3).⁵

Incisions were made along the previous markings, beveling into the subcutaneous tissue to ensure adequate blood supply to the gluteal fascia (Figure 4).



Figure 4: Intraoperative view of the elevated flaps, with the anal sphincter preserved.



Figure 5: Immediate postoperative period.



Figure 6: Follow-up at two weeks showing adequate healing and coloration of the flaps.

The procedure was performed bilaterally, and the flaps were advanced and closed without tension (Figure 5). No complications were observed during the postoperative

period, and the patient was discharged home 48 hours after the procedure without any issues, as reported in other studies such as the one by Chavan et al (Figure 5).⁶ Follow-up at 2 weeks showed satisfactory progress (Figure 6).

DISCUSSION

The reconstruction with V-Y advancement flap, initially described by Esser in 1917, has evolved over time, giving rise to various variants.⁷ Among these variants, a technique that has gained considerable acceptance in the field of perineal reconstruction is the V-Y fasciocutaneous flap, designed using the anatomical area of the gluteus maximus muscle. This flap is based on the perforating arteries derived from it, ensuring reliable vascularization. Additionally, this approach allows for a variety of anatomical modifications, thanks to its solid vascular base. In addition to its vascular robustness, this procedure stands out for its ease of execution and its ability to address large defects while still maintaining acceptable mobility and morbidity. Since defects in these areas are often associated with deep tissue necrosis, a combination of microsurgical techniques may be required, such as the simultaneous use of gluteal VY flaps and gracilis flaps, as explained in works by Thiele.⁸ Furthermore, in the gluteal region, it has been observed that dividing both the superficial fascia and the deep muscular fascia, which are the main fixation sites, can facilitate flap mobilization and ensure minimal tension, as previously described.

CONCLUSION

Despite the advancements in microsurgery, classic flaps continue to be of great utility and even the first choice in many circumstances. Their easy design, low morbidity, and excellent results make them a very attractive option for the plastic surgeon, especially in areas difficult to control such as the folds and moisture of the perineal region. Undoubtedly, knowledge of various pathologies and the management of perineal reconstruction that can be offered are fundamental for the plastic surgeon. With accurate diagnosis, the multidisciplinary team can achieve complete healing of patients through total resection followed by immediate reconstruction by trained surgeons.

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REFERENCES

1. Santos MD, Soares F, Presa-Fernandes JM, Silva DS. perianal paget disease: different entities with the same name. *Cureus.* 2021;13(5):e15161.
2. Caruso G, Barcellini A, Mazzeo R, Gallo R, Vitale MG, Passarelli A, et al. Vulvar Paget's Disease: A Systematic Review of the MITO Rare Cancer Group. *Cancers.* 2023;15(6):1803.
3. Winterton RI, Lambe GF, Ekwobi C, Oudit D, Mowatt D, Murphy JV, et al. Gluteal fold flaps for perineal reconstruction. *J Plast Reconstr Aesthet Surg.* 2013;66:397-405.
4. Witte DYS, van Ramshorst GH, Lapid O, Bouman MB, Tuynman JB. Flap reconstruction of perineal defects after pelvic exenteration: a systematic description of four choices of surgical reconstruction methods. *Plast Reconstr Surg.* 2021;147(6):1420-35.
5. Ibañez N, Abrisqueta J, Luján J, Hernández Q, Parrilla P. V-Y advancement flaps for extensive perianal defect repair. *Cir Esp.* 2016;94(9):525-30.
6. Chavan RN, Saklani AP, Desouza AL, Rohila J, Kazi M, Sukumar V, et al. V-Y Gluteal Advancement Fasciocutaneous Flap for Reconstruction of Perineal Defects After Surgery for Anorectal Cancers- A Single-Center Experience. *Indian J Surg Oncol.* 2021;12(2):241-5.
7. Esser FJS. Island Flaps. *NY Med J.* 1917;106:264.
8. Thiele JR, Weber J, Neeff HP, Manegold P, Fichtner-Feigl S, Stark GB, et al. Reconstruction of perineal defects: a comparison of the myocutaneous gracilis and the gluteal fold flap in interdisciplinary anorectal tumor resection. *Front Oncol.* 2020;10:668.

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