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Bilateral V-Y flap for a perianal basal cell carcinoma: A case report

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ABSTRACT

BACKGROUND: Basal cell carcinomas are rare in non-sun-exposed skin, and are even rarer in the perianal region. Alertness to the unusual occurrence of this tumor at perianal site, with understanding of its clinical course, can prevent delay in its diagnosis and morbid aggressiveness in the management of the disease. **PRESENTATION OF CASE:** A 93 year old female, referred to our hospital because of a three month bleeding ulcerative lesion, with a diameter approximately of 4.5 × 3.2 cm, located in the perianal region.

DISCUSSION: Tumors of the anus and perianal are infrequent neoplasms of the digestive tract. There are many diseases that can be confused with this diagnosis and it is commonly delayed because the tumor is rarely thought of in this particular cutaneous topography. Suspicion and early diagnosis, give the opportunity for a timely and appropriate treatment and also prevent tumor extension.

CONCLUSION: Treatment modalities include early wide local excision to clear margins, ensuring further local recurrence and distant metastasis. The use of local V-Y advancement fasciocutaneous flaps may be another valid option for the reconstruction of perianal skin defects, with less morbidity than other flaps described in the literature.

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1. Introduction

Basal cell carcinoma (BCC) is the most common skin tumor, it constitutes 75% of non-melanocytic skin tumors in the United States [1]. BCCs occur most often in elderly patients on sun-exposed skin of the head and neck, with a frequency greater than 80% [2].

BCCs are a rare occurrence in areas of non-sun-exposed skin. Factors contributing to carcinogenesis in this region have been proposed, such as prior radiotherapy or chronic skin irritation. There appears to be no association with Human papilloma virus [2,3].

2. Presenting concerns

We present the case of a 93 year old female, with personal history of chronic hypertension, non smoker and with no relevant family history. She was referred to our clinic because of a three month perianal lesion, which had not resolved in primary care after a course of antibiotics and topical treatments with antiseptics and barrier creams. The patient referred periodical scarce bleeding from the lesion. There was no history of weight loss, digestive symptoms or other skin lesions.

3. Clinical findings

Physical examination showed the presence of a 4.5 × 3.2 cm perianal ulcer, between the 9–3 o'clock position, with an elevated pearly-white border, indurated upon palpation, and with isolated pigment globules around the margins (Fig. 1). The center of the ulcer was friable and bled easily with touch. There were no palpable inguinal lymph nodes, satellite skin lesions or abdominal masses.

4. Diagnostic focus and assessment

Differential diagnosis considered initially pointed at possible etiologies for an ulcerative perianal syndrome, including squamous cell carcinoma, malignant melanoma, cloacogenic carcinoma, Crohn's disease, tuberculous ulcer, candida granuloma and extension from a colorectal cancer. In view of a reliable medical history, with absence of active sexual behavior, sexually transmitted diseases were discarded.

A diagnostic skin biopsy was performed from one of the ulcer borders as well as diagnostic complimentary images to determine the extension of the lesion. Routine laboratories showed an hemogram within normal limits, biochemistry with a chronic renal insufficiency with creatinine levels of 1.46. Human immunodeficiency virus serology was negative and VDRL non reactive.

The rigid proctoscopy revealed that the ulcerated lesion compromised de anal margin, without affecting sphincter continence. Up to 8 cm of the anal canal was explored, with no evidence of deeper masses inside de anal canal.

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Fig. 1. Perianal ulcer 4.5 × 3.2 cm, between the 9–3 o'clock position.



Fig. 4. Final result with no local tumoral recurrences one year after surgery.

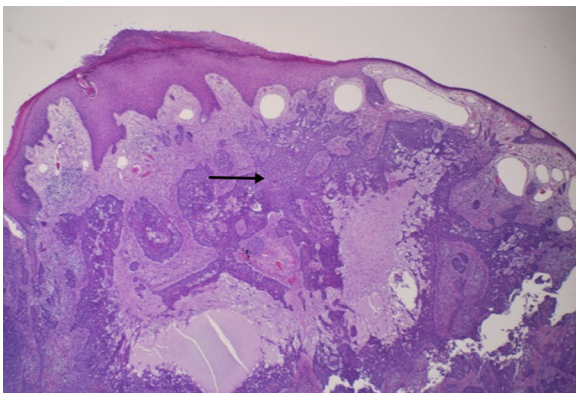


Fig. 2. Hematoxylin eosin stain, showed nests of basaloid cells with mitotic activity, arising from the basal layer of the epidermis.

A soft tissue magnetic resonance image, showed the tumor infiltrating the skin of the intergluteal region, immediately behind the anus, 26 × 27 × 10 mm in size. It made contact with the anal sphincter without visible compromise of the muscle. There was perilesional edema but no other deformities. Middle and deep portions of the anal sphincter were not affected. The levator ani muscle was reported intact.

Skin biopsy results with hematoxylin eosin stain, showed nests of basaloid cells with mitotic activity, arising from the basal layer of

the epidermis. The cells were disposed in palisade at the periphery of the tumor nests. The diagnosis of a perianal basal cell carcinoma was made (Fig. 2).

5. Therapeutic focus and assessment

A wide local excision was performed, with subsequent closure of the surgical defect using a double V-Y flap. The excision biopsy revealed negative deep and lateral margins, without involvement of the underlying fatty tissue (Fig. 3). The flap healed adequately and the continence of the sphincter was conserved. No local tumoral recurrences at one year follow up have been reported (Fig. 4).

6. Discussion

In the perianal region, basal cell carcinomas (BCCs) are uncommon, comprising 0.2% of all anorectal neoplasms. The most frequent site is close to the anal orifice, but very few cases extending into the anal canal have been reported [3].

Most literature reporting this infrequent tumor location is comprised of case reports and small case series, being the largest one reported of 51 cases of both perianal and perineal BCCs by the Mayo Clinic during an eleven year period [4].

The average age of the patients is reported to be 68–70 years and no male-female preference is well established, although a relative male predominance has been noticed [2,5,6].

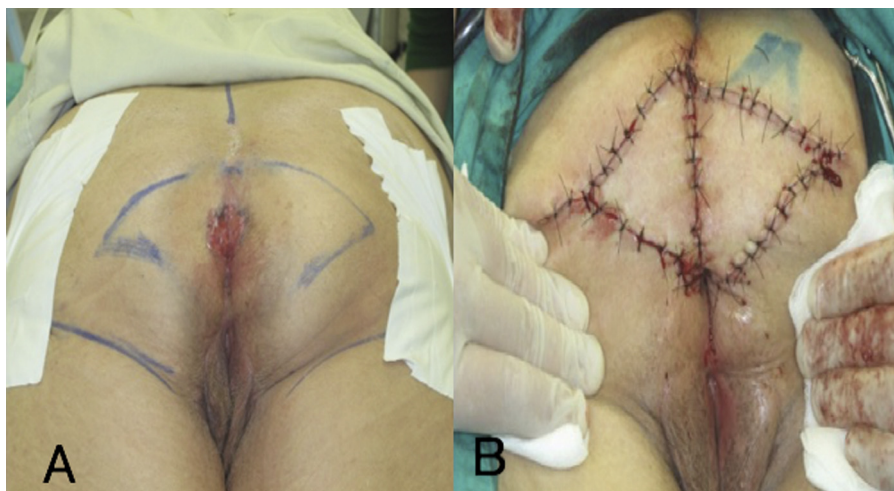


Fig. 3. A. Basal cell carcinoma with the preoperative marking. B. Final result after surgery.

Solar radiation is a well known major etiological factor contributing to the pathogenesis of common BCCs. However, the etiology of BCCs in the perianal region is not so readily explained. Amongst proposed contributing factors are: immune deficiencies, non-HPV chronic viral infections, repeated trauma to the perianal region, preexisting dermatosis, chronic scars and radiotherapy [4,7].

The most frequent tumor of the anal canal and perianal skin is the squamous cell carcinoma [8]. Other malignancies of the anal canal and anal margin include adenocarcinoma, melanoma, gastrointestinal stromal tumors, neuroendocrine tumors, Paget's disease (intraepithelial adenocarcinoma), verrucous carcinoma (Buschke-Lowenstein tumor), perianal Kaposi's sarcoma [9] and basal cell carcinoma [8,10–12].

Differential diagnosis of perianal lesions should also include infectious diseases, varying from sexually transmitted diseases to other less common dermatosis such as candida granuloma, tuberculous granuloma, deep tissue fungal infections and amoebiasis.

The definitive diagnosis is only confirmed by histological findings [7].

Treatment modalities reported in the world literature include wide local excision, electrodesiccation and curettage, and Mohs micrographic surgery [5,13].

There are many options in the reconstruction of perianal skin defects. A small skin defect may be closed directly, whereas a large defect requires a split-thickness skin graft alone or in combination with a local rotation flap [14]. Other options for perianal reconstruction may include bilateral gracilis myocutaneous flaps [15], unilateral or bilateral V-Y advancement gluteus maximus musculocutaneous flaps [16], gluteal thigh flaps, thigh flaps [17] and local V-Y advancement fasciocutaneous flaps [18].

The bilateral local V-Y advancement fasciocutaneous flap is a useful flap for closure of skin defects in the perianal area [19], being quick and easy to design and raise [20], with a low degree of complexity and morbidity. The former is important because the literature reveals that most cases of perianal BCCs present in elderly patients, thus low morbidity interventions should be preferred.

7. Conclusion

We report a successful complete resection with preservation of sphincter function of a basal cell carcinoma and reconstruction of the defect with the use of a bilateral V-Y flap.

In large skin lesions in the perianal area, total excision with a V-Y advancement flap technique can be used safely and with low morbidity.

Conflicts of interest

Dr. José P. Rivera-Chavarría, Dr. Francisco Vargas-Villalobos, Dr. Silvia Riggioni-Viquez have no conflict of interest.

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Ethical approval

None.

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Consent

We appropriate obtained written consent from the patient before the procedure.

Author contribution

Dr. José P. Rivera-Chavarría: Principal surgeon, writing the paper, final approval.

Dr. Francisco Vargas-Villalobos: assist the surgery, writing the paper, final approval.

Dr. Silvia Riggioni-Viquez: writing the paper, final approval.

Guarantor

Dr. José P. Rivera-Chavarría, Dr. Francisco Vargas-Villalobos, Dr. Silvia Riggioni-Viquez.

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