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Radical Tumor Excision of Squamous Cell Carcinoma in the Perineal Region with Complex Oncological Challenges

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Abstract

Background:
Squamous cell carcinoma (SCC) of the perineal region is a rare and complex malignancy that often presents in advanced stages. Curative treatment is challenging due to anatomical constraints and delayed diagnosis [1, 2, 6].

Case Presentation:
We report a case of a middle-aged male with moderately differentiated SCC involving the perianal and perineal regions. Despite initial chemoradiation, the disease progressed, necessitating radical surgical excision and fecal diversion via colostomy. Postoperative recovery was uneventful, with significant symptom relief and improved quality of life.

Conclusion:
Radical surgery remains a viable option in select cases of advanced perineal SCC, offering substantial palliative benefits [8]. A multidisciplinary, individualized treatment approach is critical for optimizing patient outcomes in such complex oncological scenarios.

Keywords: Squamous Cell Carcinoma, Perineal Cancer, Radical Tumor Excision

Introduction

Cutaneous squamous cell carcinoma (cSCC) is the second most common type of non-melanoma skin cancer. However, its manifestation in the perineal or perianal region is extremely rare and poses significant diagnostic and therapeutic challenges due to the area's anatomical complexity [1, 2, 6]. Patients often present at advanced stages when curative treatment options are limited, necessitating palliative interventions [3, 7]. This case illustrates the utility of radical surgical excision and colostomy in managing symptomatic progression of advanced perineal SCC.

Case Presentation

Patient Information

A middle-aged male was initially diagnosed in April 2024 with moderately differentiated squamous cell carcinoma (G2) of the perianal region, with involvement of the anal canal.

Initial Treatment

The patient underwent multiple cycles of chemotherapy and radiotherapy with partial response. However, by August 2024, the tumor exhibited further progression, and a palliative colostomy was performed alongside partial tumor debulking.

Presenting Complaints (June 2025)

- Fatigue and cachexia
- Severe bilateral leg pain
- Dyspnea on minimal exertion
- Large exophytic, ulcerated and necrotic tumor (~7–10 cm) involving the perineum, scrotum, and anus

Diagnostic Workup

Histopathology: Moderately differentiated (G2) keratinizing squamous cell carcinoma with focal necrosis

Imaging: CT scan showed a localized mass without adjacent organ invasion or lymph node metastases

Laboratory Values:
- Hemoglobin: 115 g/L
- ESR: 81 mm/h
- WBC: 9.53 × 10⁹/L

Surgical Intervention

In June 2025, the patient underwent exploratory laparotomy under general anesthesia. A large cloacogenic tumor extending into the perineum was visualized (Fig 1). Radical tumor excision was performed, including resection of the distal rectum and sigmoid colon below the previously constructed colostomy. Hemostasis was achieved, and the perineal wound was tamponaded (Fig 2).

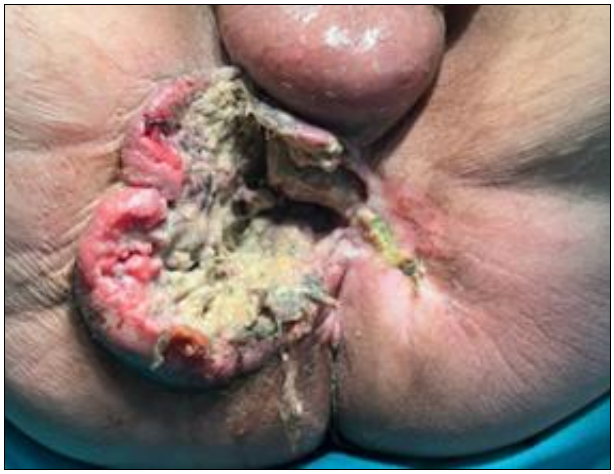

Fig 1: Preoperative view showing the extensive perineal tumor mass

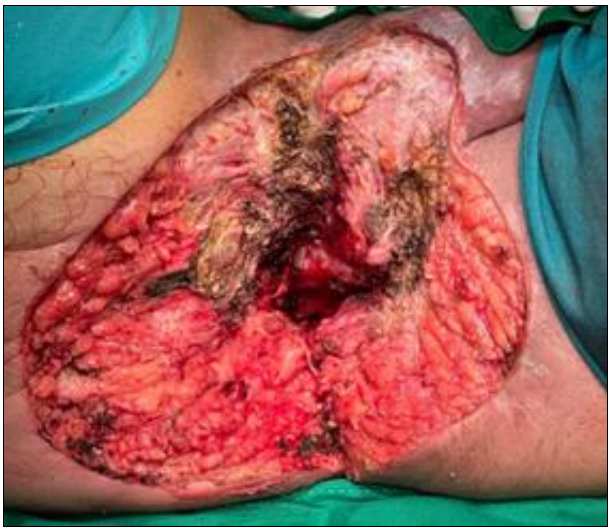

Fig 2: Postoperative view showing the perineal wound following radical excision and hemostatic packing

Postoperative Course

The patient had an uneventful recovery. Oral feeding was resumed on postoperative day 4, and the colostomy functioned normally. There was marked improvement in local symptoms, including pain reduction, improved hygiene, and restored mobility. No infectious or wound-healing complications were observed.

Discussion

Perineal SCC is a rare variant of cSCC, often associated with delayed diagnosis and limited surgical access [1, 2, 3]. In advanced stages, palliative management is typically prioritized [4, 5]. Surgical debulking has been shown to significantly relieve symptoms, reduce infection risk, and improve quality of life [8].

Our case confirms that even in non-curative scenarios, radical surgery may offer substantial benefit. As also noted by Stelzmueller *et al*., individualized surgical interventions can enhance patient comfort and function even in anatomically challenging or immunocompromised settings [8].

A multidisciplinary approach—integrating oncology, surgery, radiology, and palliative care—remains essential. Long-term prognosis remains guarded, but meaningful improvements in patient well-being are achievable.

Conclusion

Radical tumor excision combined with fecal diversion can provide significant symptomatic relief in advanced perineal SCC. While curative treatment may not be feasible in all cases, individualized surgical strategies within a multidisciplinary framework can optimize patient comfort and dignity.

Acknowledgments

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