“Extensive Anal Cancer Resection Requiring Bilateral Subtotal Buttockectomy” - A Case Report

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Abstract

We report an aggressive case of anal cancer recurrences. This 38-year-old male presented with extensive verrucous anal carcinoma extending laterally across both buttocks. He was diagnosed in May 2019 with a T3N1cM0 anal SCC. His initial treatment entailed four cycles of neoadjuvant chemotherapy with carboplatin and paclitaxel, completed in October 2019, preceded by a laparoscopic defunctioning loop colostomy. Subsequent radical chemo radiotherapy using 53.2 Gy in 28 fractions with concurrent mitomycin C and capecitabine was complete in January 2020. MRI pelvis and PET CT scan 5 months later demonstrated total resolution, supported by an equally promising clinical response. However, further follow-up imaging at ten months post completion of treatment, suggested local disease recurrence with prominent FDG avid internal iliac lymph node, correlating with clinical findings. He underwent an extended ELAPE followed by VRAM myo-cutaneous flap with unilateral V-Y advancement flap on right side and fascio-cutaneous rotation advancement flap on left side. Recovery was complicated by wound dehiscence, successfully managed by a negative pressure dressing. He remains well and disease free.

Introduction

Anal cancer accounts for 1% of total cancer in the UK and 4% of colorectal malignancies with the most common form being SCC occurring at a median age of 60[1]. Infection with HPV strains (16 and 18) is the leading risk factor[2] of anal SCC but immunosuppression and smoking are also recognised risk factors[3-5]. Anal cancer may present with an anal mass, perianal pain, bleeding, discharge, constipation, tenesmus, and inguinal lymph nodes. Diagnosis of anal cancer includes physical examination, exclusion of synchronous colonic lesions, confirmatory histological diagnosis and staging investigations. Associated malignancies also need to be screened for. The gold standard for treatment of anal SCC have moved away from historical APR to first line curative treatment with chemoradiotherapy[6, 7]. Surgery is reserved for incomplete responders or recurrent disease with survival post salvage APR documented at 25% to 75% and a 5-year survival of 40% to 60%. This is associated with locoregional recurrence rates of 10% to 30%.

This 38-year-old gentleman was referred to the colorectal clinic in 2017 for perianal warts management. The anal warts were listed for excision but unfortunately, he was an hospital-phobic patient and missed several appointments. In April 2019, he represented to the hospital with a painful bleeding mass arising from the anus extending over both buttocks, with mucinous discharge. The appearance was concerning for an anal malignancy. MRI pelvis demonstrated a 10x8x4 cm lobulated soft tissue mass with bilateral enlarged pelvic lymph nodes, the largest being 2.2 cm. He underwent an urgent EUA of the anus, showing an intensive fungating anal tumour extending 15cm laterally. Histology confirmed verrucous squamous cell carcinoma and provisional radiological staging was T3N1cM0.

Following discussion in the local anal cancer MDT, treatment plan was initiated, comprising a defunctioning loop colostomy followed by neoadjuvant chemotherapy including carboplatin and paclitaxel. He received 4 cycles over two months from August to October 2019. He had follow-up imaging arranged which showed overall stable disease with reduction in tumour size. The repeat PET scan suggested that there was no evidence of metastasis. On 05/11/2019, he was started on definitive chemoradiotherapy, incorporating Mitomycin C and Capecitabine with radiotherapy (53.2 Gy in 28 fractions) encompassing all sites of the disease ending on 09/01/2020.

In May 2020, the follow-up CT and MRI imaging showed total resolution of the tumour with no distant disease. In addition, the original pelvic lymphadenopathy was no longer present. Some nonspecific peripheral restricted diffusion inflammatory changes related to treated-tumour-bed perianal sepsis rather than minimal residual disease were noted. The MDT plan was a surveillance MRI scan in 3 months.

The following MRI scan suggested local disease recurrence in addition to a prominent 6mm left iliac lymph node. A PET CT scan showed intensely metabolically active soft tissue related to the anus and subcutaneous tissues involving the medial aspect of left gluteal musculature. The lymph node described previously was below the resolution of PET scan. It was not feasible to distinguish malignancy from an inflammatory/infected process involving the fistulous tracts.

Following further MDT discussion, the decision was made for a joint operative management under the colorectal and plastic surgeons. The proposed procedure of an open ELAPE with total coccygectomy, excision of up to 50% of left gluteal muscle, 9cm posterior to the anal verge, 9cm to the left and 7.5cm to the right and closure of the perineal defect with VY advancement flap was performed in February 2021. The specimen was extracted via a large keyhole (incorporating the indurated tissue) incision, exposing heavy vascular plane scarring secondary to radiotherapy. Total en-bloc excision of the cancer tissue was performed resulting in a 34x25cm defect, subsequently closed with VRAM myo-cutaneous flap with unilateral V-Y advancement flap on right side and fascio-cutaneous rotation advancement flap on left side. The histology results post operatively confirmed total resection of malignant tissues with clear margin by 10mm microscopically with none of the lymph nodes showing any signs of malignant changes indicating a ypT3ypN0V1R0.

The per-operative course was complicated by superficial wound dehiscence. The flaps remained viable, and the wounds were managed with negative pressure dressing. Thirteen months post-operatively, both abdominal and perineal wounds were well healed, with no signs of herniation. The patient remains well, managing his stoma, with no evidence clinically or radiologically of local or distant recurrence.

Historically, extensive local recurrent anal cancer was viewed as inoperable. However, this case demonstrates that with the right team of specialists, including radiologists, oncologists, and onco-plastic surgeons, it can be excised with curative intent with excellent functional and survival outcomes. Our unit utilizes complex colorectal MDT with specialised cancer surgeons and radiologists to provide the optimal roadmap to ensure the best outcomes for patients with locally advanced disease.

References