

Case Report of a Wide Local Excision of Huge Gluteal Sarcoma with Coverage of Gluteal Defect with Rotational Gluteal Fasciocutaneous Flap

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ABSTRACT

Soft tissue sarcomas are cancerous tumour that begins in the soft tissues of the body. This case aims to present a 56-year-old Malay female patient present with a huge right gluteal sarcoma and treated through surgical excision and right gluteal defect covered with right rotational gluteal fasciocutaneous flap. This case report concludes that approach is a relatively simple technique that should be taken into account when considering the surgical removal of gluteal sarcoma.

Keywords: Soft tissue sarcoma; Gluteal sarcoma; Gluteal defect; Fasciocutaneous flap

INTRODUCTION

Soft Tissue Sarcomas (STS) are a heterogeneous set of uncommon tumour. Over 50 STS histo types have been distinguished; with most having remarkable clinical; prognostic; and therapeutic highlights. Albeit under 1% of all malignant tumour are STS their treatment is intricate because numerous tumour-related (e.g.; histotype, site, size, profundity, grade, essential versus intermittent) and treatment-related (e.g., careful edges, utilization of adjuvant treatment) numerous factors impact persistent results. Since these variables are innately variable and STS is uncommon, the administration of patients with STS is best embraced by an accomplished multidisciplinary group in expert physicians to limit recurrence, maximize survival, and preserve nature of life. The standard essential treatment for STS is careful resection with proper negative edges where possible [3]. Sarcomas of the gluteal district regularly bring about sizable defects following resection trying to recreate because of their area, especially in patients who have gotten radiation treatment. Reproduction of these imperfections has been only from time to time talked about in the literature. Reconstruction of large gluteal soft tissue defects has been rarely discussed as opposed to sacral and ischial areas. The gluteal area can be challenging reconstruction because of the lack of neighbourhood fold choices and back area as a pressured shear site. Free flap reconstruction is another option, however, it can be muddled by restricted recipient vessels and requesting postoperative care [4].

CASE PRESENTATION

A 56-year-old Malay male patient was presented with a five months

history of right buttock lesion. Noted one the lesions over right gluteal region become pruritic five months ago, gradually increase in size till one and half month ago when there was a rapid increase in size with foul-smelling discharge and pain that was exacerbated with movement with a history of fever and serous discharge from the mass and contact bleed. There was no history of preceding trauma or accident. Patients developed generalised cutaneous lesions since age 20 years old, diagnosed as neurofibromatosis.

The physical examination

Revealed a painful limp, mass covering gluteal muscle limit ROM of the right hip in all directions fungating and foul smelling mass on right gluteal region 20 cm × 20 cm with Pedunculated Stella Base of mass lies over superior portion of right buttock, spares dependent area when in sitting position, mobile.

Investigation

MRI of the pelvis with contrast has shown the Presence of cutaneous exophytic lesion at the ring posterior pelvic region with superficial subcutaneous fascia and intratumoral haemorrhage. This lesion measures 5.8 cm × 14.6 cm × 13.6 cm. There is no involvement in the deep fascia or underlying muscles, and features may present dermatofibrosarcoma.

Operative approach

Wide local excision was done large right gluteal region lesion removed 15 cm × 15 cm excision involvement fascia, and part of the muscle with excision of 3cm margin from each side of tumour stalk and specimen sent for histopathology (Figure 1).

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Soft tissue coverage of a right gluteal region with right rotational gluteal fasciocutaneous flap. The defect 15 cm × 15 cm right gluteal defect over the right gluteal region, the defect base of gluteal Maximus muscle intact. The flap's length depended on the defect's size and can be extended up to the trochanters, right superior gluteal artery perforator identified and preserved during dissection, the elasticity and redundancy of the gluteal region also determine the achievement of optimal wound closure. The flap is snugly fit into the defect, Closure of the tail of the flap or donor defect is done at the end as the elasticity of the gluteal region helps in easy mobilization and Closure. Suturing was done in two layers: dermal and another for skin, dermal with vicryl suture 2/0 and skin with Nylon suture 3/0 (Figure 2).

Postoperative patient evaluation is done the rotational gluteal fasciocutaneous flap in the management of gluteal defects post wide local excision of sarcoma treated using this technique in a single stage. The size of the defect and postoperative complications in each patient was assessed.

RESULT AND DISCUSSION

All wounds healed, and during follow-up, no wound dehiscence or no surgical site infection, and our treatment reduces the morbidity of prolonged hospital stay.

Soft tissue sarcomas are a group of uncommon anatomically and histologically various neoplasms: the soft tissues' omnipresent area and the almost three dozen perceived histologic subtypes of soft tissue sarcomas. In the United States, around 9,400 new soft tissue sarcoma instances are distinguished yearly, and around 3,490 patients kick the bucket of the illness every year. The age-changed occurrence is 2 cases for every 100000 persons [5]. In



Figure 1: Post-operative image of specimen.



Figure 2: Postoperative right gluteal defect closure by rotational gluteal fasciocutaneous flap.

contrast to other malignancies, for example, colon disease little is known about the epidemiology soft tissue tumour. There is a slight male prevalence, with a male-to-female proportion of 1.1:1.0. The age conveyance in grown-up soft tissue sarcoma contemplates <40 years, 20.7% of patients, 40-60 years, 27.6% of patients, and >60 years, 51.7% of patients. Race Studies in huge accomplices of patients show that the race dissemination of soft tissue sarcomas reflects that of the American populace (86% Caucasian, 10% African-American, 1% Asian-American, and 3% other [5].

Soft tissue sarcoma can be brought about by DNA transformations that turn on oncogenes or turn off tumour suppressor genes, but they have discovered some risk factors that can make an individual bound to develop these malignancies [6] some Inherited conditions retinoblastoma, Li-Fraumeni disorder, familial adenomatous polyposis, neurofibromatosis, tuberous sclerosis and Werner condition increase risk of sarcomas as well as radiation exposure and chemical materials as herbicides, arsenic and dioxin, may risk factors for STS [2]. A Magnetic Resonance Imaging (MRI) can help recognize the tumour's size and profundity since it plainly shows the tumour's relationship to normal muscle, fat, nerves, and veins. It can likewise be utilized to check the tumour's response to treatment and notice the tumour's progression [1].

Computerized Tomography (CT) can be used to identify how much bone is engaged with a tumour. It is also valuable in distinguishing the malignancy's spread to the lungs, mid-region, and pelvis. A CT scan is occasionally used as an alternative of an MRI for masses located near a metal implant.

The tissue sample is taken during a biopsy, the pathologist can recognize the malignancy type and grade [1] surgical resection is the mainstay treatment for patients with localized tumour. There has been progressive surgical management of STS careful from radical surgical ablation surgery, for example, amputation toward limb-sparing approaches consolidating wide local resection with preoperative or postoperative radiotherapy.

The careful way to deal with STS relies upon cautious preoperative staging with MRI or CT for tumour and a percutaneous histologic analysis and grading [5]. Wide local resection with safe boundaries with recurrence rates around 30% without adjuvant treatments. Studies showed that chosen patients with localized, small, low-grade tumours could be managed with wide local excision with recurrence rates less than 10% [5].

Gluteal raw area reconstruction is most generally required to treat pressure bedsores, wound dehiscence, and defects resulting from tumour excision most ordinarily sarcomas [4]. The utilization of neighbourhood tissue is ideal for like-with-like substitution. However, donor site accessibility might be a restricting variable. The surgeries, e.g., fasciocutaneous V-Y f, inferior and superior gluteal artery perforators flaps, posterior thigh flap and tensor fascia lata flap, may fulfill this need. C.P.G. Nel et al. reported technique for reconstructing defects of the gluteal area after surgical excision of sarcoma by double opposing buttock flaps and coverage by a sigmoidplasty [7].

Another literature review showed gluteal defect coverage with the pedicled tensor fascia lata a practical choice in patients with oncologic gluteal defects, significantly if earlier radiation treatment has undermined neighbourhood tissues and donor's vessels [4]. Our literature review using gluteal rotational flap is a relatively simple technique for reconstructing sacral wound sores and

provides adequate filling of the sacral defect and has slight muscle donor-site morbidity.

CONCLUSION

Our case report summarized that rotational gluteal fasciocutaneous flap is more suited for repairing gluteal tissue defects after wide local excision of localized soft tissue tumour. This surgical procedure is more time-saving and straightforward than other flaps. Besides, this technique reduces infection rate, flap necrosis. Thus, believe that flap represents a treatment method that is easily approached.

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