

Femoral blowout in a case of Carcinoma Penis

Nikhil Panse, Parag Sahasrabudhe, Bhalchandra Kashyapi¹

Departments of Plastic Surgery and ¹Urology, BJ Medical College and Sassoon Hospital, Pune, India

ABSTRACT

There is considerable literature on the potential for a femoral blowout in case of fungating inguinal lymph nodes in a case of penile carcinoma. However, reported cases of actual femoral blowout are sparse in literature. We encountered one such case of femoral blowout because of fungating inguinal lymph nodes in a case of Ca.Penis. Emergency palliative resection of the fungating nodes, ligation of the femoral vein, and emergency flap cover in the form of a perforator-based anterolateral thigh flap was performed. We believe that patients with a potential of femoral blowout should undergo resection and suitable coverage to prevent fatal hemorrhage.

Key words: Anterolateral thigh perforator flap, penile carcinoma, femoral blowout

INTRODUCTION

Femoral blowout can lead to alarming hemorrhage and death in a very short span if not managed aggressively. Fungating inguinal nodes have a potential for femoral blowout. If the blowout occurs at a place other than a healthcare facility, where emergency medical care is not available, fatality is almost certain. We encountered a femoral blowout in a case of Ca.Penis in an admitted patient. Emergency surgery in the form of femoral vein ligation, palliative resection, and coverage by a perforator-based anterolateral thigh flap helped us save the patient.

CASE REPORT

A 45-year-old male patient previously operated for of penile carcinoma had earlier undergone total penile amputation alone without inguinal block dissection presented to us with bilateral fungating foul-smelling infected inguinal lymph nodes. Computed Tomography

(CT) scan showed grossly enlarged iliac group of nodes bilaterally. It was decided that the patient be given a chemotherapy regime, which would potentially shrink the tumor mass and enable a relook at surgical excision. The patient was also started on broad-spectrum injectable antibiotics to control the infection. However, after one cycle of chemotherapy, the patient immediately had a femoral vein blowout on the right side while in the ward. Compression was given and patient was immediately shifted to the operation theater. Palliative resection of the nodal mass was performed. The femoral vein was found to be eroded and was ligated above and below the area of erosion of the vein. A large defect of size 10-15 cm was created with exposed vessels. For the exposed vessels, we used a perforator-based anterolateral thigh flap to cover the defect [Figures 1-5]. The patient was transfused with three pints of whole blood. The postoperative course was uneventful.

The patient also had contralateral nodal mass. However, the patient had lost large amount of blood and so surgery of the contralateral side was planned at a later date. The patient was electively posted for contralateral palliative nodal dissection in the next few days. Wide local excision and coverage of the defect was done by an ipsilateral gracilis muscle flap. The gracilis muscle was split skin grafted [Figures 6-8].

At the eight-week follow-up, both flaps were well settled. Apart from limb edema on the right lower leg because of ligation of the femoral vein, no other local problems were seen. The patient succumbed in the next few months as a result of renal complications.

DISCUSSION

There is vast literature available on the potential for a femoral

For correspondence: Dr Nikhil Panse, Department of Plastic Surgery, Vimal Niwas, Sudarshan Society, Near Model Colony Post Office, Shivajinagar, Pune 16, India.
E-mail: nikhil.panse@rediffmail.com

Access this article online

Quick Response Code: 	Website: www.indianjurol.com
	DOI: 10.4103/0970-1591.102715

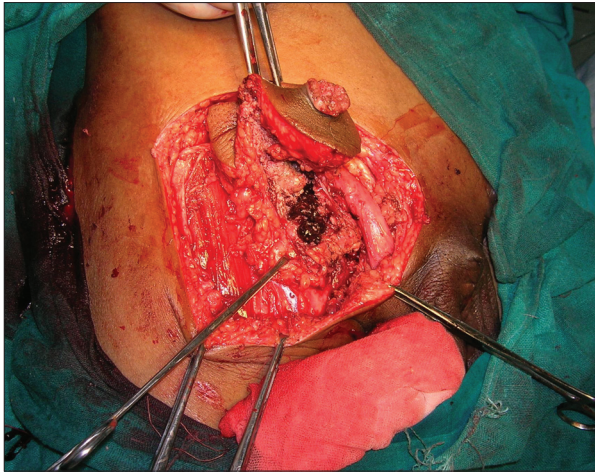


Figure 1: Fungating nodal mass being resected with thrombus *in situ*



Figure 2: Defect created after excision of the nodal mass

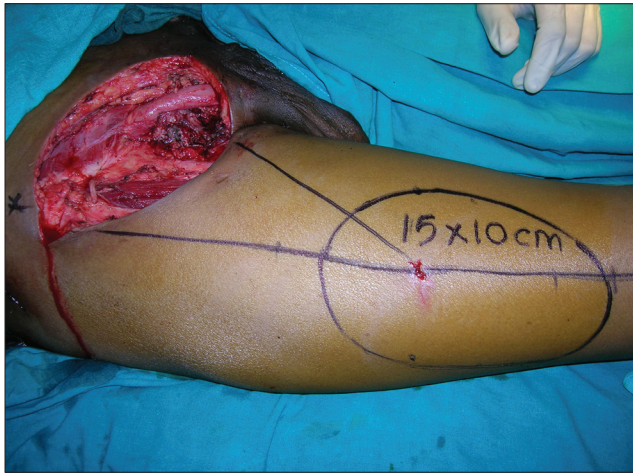


Figure 3: Planning of the perforator-based anterolateral thigh flap



Figure 4: Harvested anterolateral thigh flap covering the defect



Figure 5: Well settled anterolateral thigh flap on the right side and fungating inguinal nodes on left side

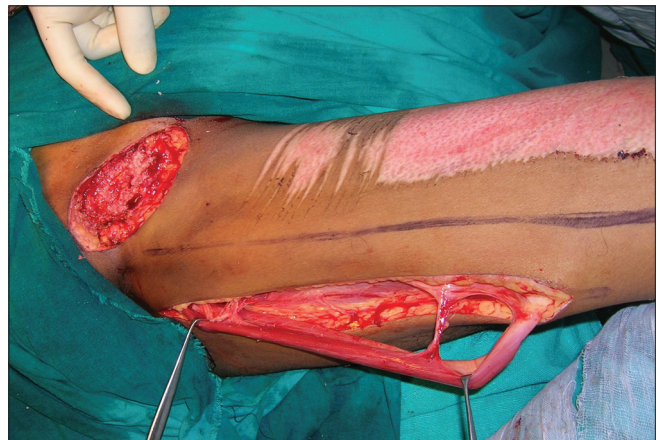


Figure 6: Defect created after excision of nodal mass on the left side and gracilis flap being harvested

blowout in the event of fungating inguinal lymph nodes in a case of Ca.Penis. However, to our knowledge, actual blowout and its emergency management is not reported in literature.

Fungating nodes pose an inherent dilemma. Leaving these alone increases the risk of femoral blowout. Palliative

resection helps in improving the quality of life. However, that may necessitate surgery of a greater magnitude, which might require en bloc vascular resection and reconstruction with the help of a suitable conduit. An argument can be

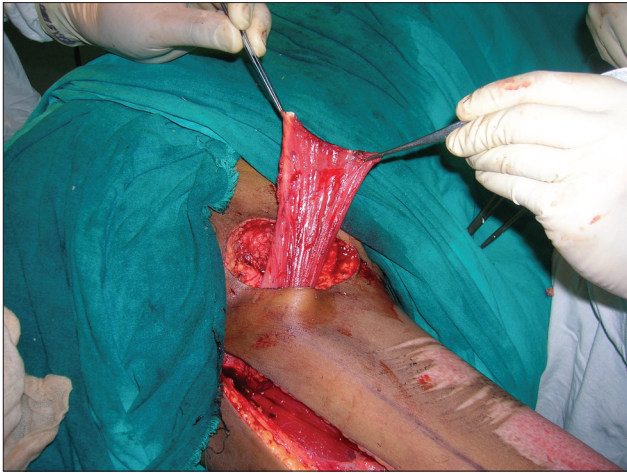


Figure 7: Gracilis muscle brought into the defect

made that surgical undertaking of this magnitude is not warranted with the prognosis associated with an advanced systemic disease and declining performance status.

Gopalkrishnan^[1] stresses that if the femoral vessels are adherent then the tumor should be shaved off the vessels or, if needed, the vessel resected en bloc with the specimen and a graft substituted to restore limb circulation. The inguinal defect at this stage must be protected by some form of flap cover.

Chemotherapy is effective in producing tumor shrinkage in more than 50% of patients and may be useful to downsize the primary tumor and secondary nodes to enable less mutilating surgery, and thus reduce morbidity.^[2] Chemotherapy may also be combined with radiation to increase response rates and improve survival.^[2]

Clearly, randomized multicentric trials are needed to define the guidelines of management. However, we do not have any randomized control studies to guide the management of these clinical conditions.^[3] It is therefore necessary that each patient be evaluated individually and necessary management initiated as per the clinical presentation of the patient.

Anticipating shrinkage of tumor mass, we had initiated chemotherapy regime; however, our patient had a blowout immediately after completion of the chemotherapy cycle and we had to undertake immediate surgical exploration.

We believe that the presence of local infection is the most important criteria leading to a blowout. Radical manual debridement for control of infection is not possible in these areas without the risk of vascular injury; this is because the structures are friable and give way with minimum handling. Only antibiotics may not effectively eradicate the infection. Persistent infection and invasion can lead to a blowout. Poor general condition and nutritional status of the patient add to it. Improvising on the nutritional status of the patient and



Figure 8: Gracilis muscle skin grafted

control of infection are important aspects of management of fungating inguinal nodes with the potential for blowout.

In our patient, there was a femoral vein blowout. However, there is also a possibility of an arterial blowout, which can be more catastrophic as compared to a venous blowout. Arterial blowout can lead to torrential bleed and may necessitate segmental resection and conduit for maintaining vascular continuity. Which structure blows out obviously depends on the area of invasion. Although there is no statistical data available, veins being thin walled as compared to arteries are more prone to blowout. There is not much literature available on the status of the vascularity of the limb in case of growths invading the femoral vessels. However, in adults with military wounds, ligation of the superficial and common femoral artery reportedly result in amputation rates of 54% and 86%, respectively.^[4] Infants with a common femoral artery ligation may have a lower amputation rate because of some congenital collateral vessels, such as the sciatic artery.^[4] In a patient like ours, when tumors involve major peripheral vessels, subacute or chronic vascular compression likely would facilitate development of collateral circulation. Similar chronic situations have been described in adults treated with debridement and common femoral artery ligation, after infected femoral artery pseudoaneurysms.^[5] Considering the lack of clinical guidelines in management of femoral arterial blowout, and that development of collaterals to salvage the limb may not always be present, we believe that it would be appropriate to manage each patient individually and consider segmental resection and conduit for maintaining vascular continuity as and when necessary.

Numerous flaps are described for groin defects ranging from Sartorius,^[6] rectus abdominis,^[7] tensor fascia lata,^[8] and Omentum.^[9] In our case, depending on the defect size and as a personal preference, we did a perforator-based Anterolateral thigh flap for the right side where the defect size was large and did a gracilis flap for the smaller left-sided defect.

We would like to stress that fungating inguinal lymph nodes have a potential for erosion of femoral vessels. We

were fortunate that the femoral vessels of our patient eroded when the patient was hospitalized and emergency surgical help was at hand. Unfortunately, if it would have been at some place other than the hospital, it might have been fatal for the patient. In case of patients being managed on an outpatient basis, or those not willing for admission, every patient and his relative must be informed about the potential of a blowout, and must be explained the emergency management in the form of compression over the area before shifting the patient to a healthcare facility. Even for patients admitted in ward, the on-duty staff nurse must be made aware of the possibility of a blowout and explained regarding emergency management.

CONCLUSION

Even if a curative resection is not possible, select patients with fungating inguinal nodes with a potential for blowout must undergo palliative resection and coverage with a suitable flap. We believe that of all patients with fungating inguinal nodes, those with local infection are at a higher risk of blowout and must be managed aggressively by palliative resection and flap coverage.

REFERENCES

1. Gopalakrishnan G. Cancer penis: An overview. *Indian J Urol*

- 2006;22:364-7.
2. Chacko RT. Penile carcinoma: The role of chemotherapy. *Indian J Urol* 2006;22:360-3.
3. Gopalakrishnan G. Penile cancer: How best to treat?. *Indian J Urol* 2006;22:337.
4. Aponte-Tinao L, Farfalli GL, Ayerza MA, Muscolo DL. Case report: Common femoral artery ligation after sarcoma resection in infant. *Clin Orthop Relat Res* 2011;469:609-12.
5. Arora S, Weber MA, Fox CJ, Neville R, Lidor A, Sidawy AN. Common femoral artery ligation and local debridement: A safe treatment for infected femoral artery pseudoaneurysms. *J Vasc Surg* 2001;33:990-3.
6. Meyer JP, Durham JR, Schwarcz TH, Sawchuk AP, Schuler JJ. The use of sartorius muscle rotation-transfer in the management of wound complications after infrainguinal vein bypass: Report of eight cases and description of the technique. *J Vasc Surg* 1989;9:731-5.
7. Bare RL, Assimos DG, Mc Cullough DL, Smith DP, De Franzo AJ, Marks MW. Inguinal lymphadenectomy and primary groin reconstruction using rectus abdominis muscle flaps in patients with penile cancer. *Urology* 1994;44:557-61.
8. Gopinath KS, Chandrasekhar M, Kumar MV, Srikant KC. Tensor fasciae latae musculocutaneous flaps to reconstruct skin defect after radical inguinal lymphadenectomy. *Br J Plast Surg* 1988;41:366-8.
9. Watkins RM, Thomas JM. The role of greater omentum in reconstructing skin and soft tissue defects of the groin and axilla. *Br J Surg* 1985;72:925-6.

How to cite this article: Panse N, Sahasrabudhe P, Kashyapi B. Femoral blowout in a case of Carcinoma Penis. *Indian J Urol* 2012;28:325-8.

Source of Support: Nil, **Conflict of Interest:** None declared.