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RECONSTRUCTION OF SUNKEN ANAL VERGE DUE TO POST TRAUMATIC PERIANAL SCARRING BY SCROTAL FLAP

General Surgery

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ABSTRACT

Perineal laceration with avulsion of anal or anorectal canal is a common entity and is most often associated with severe pelvic trauma. Anorectal avulsion is a unique type of trauma in which the anus and the sphincter no longer join the perineum .Blunt trauma is considered as an infrequent cause of perineal and anorectal injury (5- 10%). This infrequent type of injury is usually caused by motor vehicle, motorcycle or pedestrian-vehicular accidents.One of the main morbidities that perineal and anorectal trauma casualties suffer from is faecal incontinence which could be disabling and devastating to the degree that permanent faecal diversion in some severe cases will be a reasonable option for patient satisfaction.
Perianal tissue defect reconstruction is reported with Gracilis flap ,posterior thigh flap, Vertical Rectus Abdominis Myocutaneous flap.
In this case report, a successful attempt of unilateral scrotal flap is shown after release of 3 months old perianal scarring in a case of bilateral degloving ischiorectal fossa injury causing sunken anal verge.

KEYWORDS

Scrotal flap ,Sunken Anal Verge, Reconstruction, Traumatic Injury, Perianal wound.

INTRODUCTION:

Scrotal flaps have been routinely used for urethroplasty[7] extensive penile reconstruction[8], for reconstruction post debridement in Fournier's gangrene wound[9].Scrotal wall flap for perianal tissue defect with sunken anal verge have not been documented in medical literature.The dartos Musculo-cutaneous flap is based on the anterior scrotal branches of the deep external pudendal artery whereas posterolateral wall of scrotum is supplied by internal pudendal artery.
The most common flaps used for perianal wound reconstruction are gracilis[10] musculocutaneous flap and posterior thigh flap[6] Both these flaps comes with a thick muscle belly and aid in covering of the large defects.Vertical rectus abdominis myocutaneous flap can also be used for perianal reconstruction but is associated with high morbidity, whereas scrotal flaps are associated with low morbidity and patient can resume regular works early

CASE PRESENTATION:

A 37year old male patient presented with alleged history of Road Traffic Accident ,a pedestrian run over by a truck sustaining injury to perianal region. Patient was vitally stable and had a huge perianal degloving injury with negative USG FAST scan with other blood investigations within normal limit.At the perianal region, there was approx. 10cm x 5cm lacerated wound bilaterally around the anal opening with disruption of the ischio-anal fossa and exposure of Alcock's canal bilaterally.Bilateral perianal verge avulsion was present upto the depth of 5cm with normal sphincter tone.

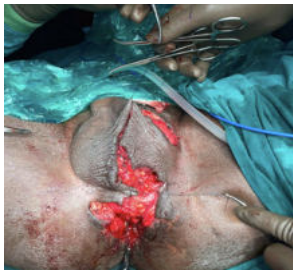
To allow better healing of the perianal wound decision was taken to proceed with Diversion colostomy and debridement of the perianal wound with regular dressing.

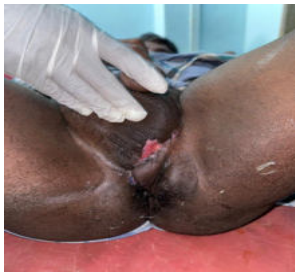
The perianal wound was allowed to heal by secondary intention with wound scarring which resulted in sinking of the anal verge from the original site.

PRESENTING DEGLOVING PERIANAL WOUND

SUNKEN ANAL VERGE

INTRAOPERATIVE PHOTO





POST-OP DAY 20

DISCUSSION:

In this case, there was a need for full thickness thin flap and hence the scrotal flap was used with all the layers including the tunica albugenia.
Vascular anatomy-Scrotal skin is supplied by anterior Scrotal Branches of the deep external Pudendal Artery, Posterior Scrotal branches of internal pudendal artery, Cremastric branch from Inferior Epigastric artery and branches from testicular arteries. Veins follow these arteries and form saphenous vein before it enter through the saphenous opening.

Despite of bilateral ischiorectal fossa degloving wound, fecal incontinence couldn't be assessed. After the scarring of perianal wound over the ischiorectal region, the external sphincter function were preserved and after colostomy closure along with scrotal flap reconstruction, patient did not present with any degree of fecal incontinence.

Patient's perianal wound was reconstructed using scrotal flap which provided better cover in the already sunken anal verge.

CONCLUSION

- For perianal tissue defects with scarring, after release of perianal scarring, the created tissue defect can be covered by scrotal flap with better results compared to other bulky musculocutaneous and fasciocutaneous flap.
- Scrotal flaps helps in early ambulation of the patient.
- Scrotal flaps helps in reducing donor site morbidity as compared to the said conventional flaps
- Scrotal flap helps in providing well vascularized muscle to fill the dead space which reduces fluid collection and infection.

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