Case Study

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'Lapog Unev' Technique of Unequal Z Plasty for Pilonidal Sinus & Sacral Pressure Sore Surgery: A Novel Technique

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Abstract

Pilonidal sinus excision is a common procedure and many forms of flaps like Limberg's flap close the defect. We are introducing a novel technique of "Lapog Unev unequal Zplasty". This is found to be very useful and getting completecure without much scar. The residual scar is deviated from the midline with curvature to lateral side and hence recurrence is nil. Same procedure is used in few cases of pressure sore over the sacrum and found to be very good in healing and pressure bearing property.

Keywords: Pilonidal Sinus; LapogUnev Technique; Z-Pasty; Unequal Z-Palsty; Limberg Flap; Sacral Pressure Sore.

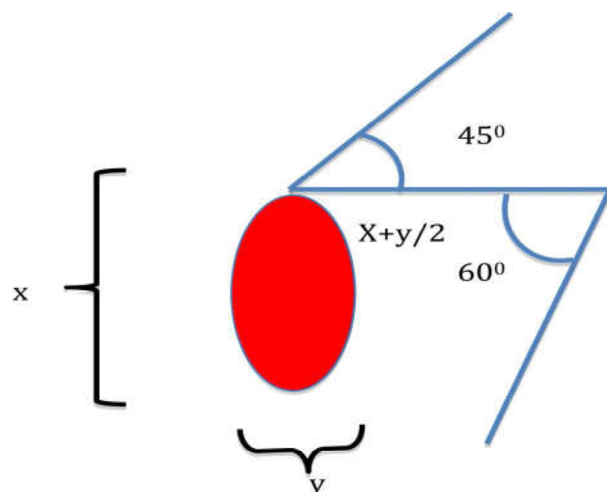
Introduction

There are many techniques of reconstruction for defects after excision of pilonidal sinus. The commonly used procedures are the rotation flaps, Limberg flaps, Zplasty reconstruction, and semilunar flaps. Each has got its own merits and demerits. We have used technique of varying angle Zplasty for reconstruction of defects after excision of the pilonidal sinus. Making limbs with equal length of the defect at 60 degrees makes the classical Zplasty. The scar will be change to the new direction. Instead of the classical 60 degrees, we have changed the pattern as 60 degrees and 45 degrees. The scar heals away from the midline and the healing is with very good scar.

Similar to the elliptical excision of the pilonidal sinus, sacral pressure sores also can be excised and can be done with tension free closure and better scar and coverage. We have tried this technique in a reasonable number of cases and the results are evaluated.

Surgical Technique

The patients are operatedunder general anesthesia with the prone position. Local infiltration of epinephrine 1:200.000 was followed by excision of the pilonidal sinus with deep tissues creating elliptical or circular excision defect. The finally defect is measured from one end to the other end and noted as ' x'. The horizontal width at the maximum wide area is noted as 'y'. From the upper end of the defect a tangential line is drawn with a length of [x+y/2].



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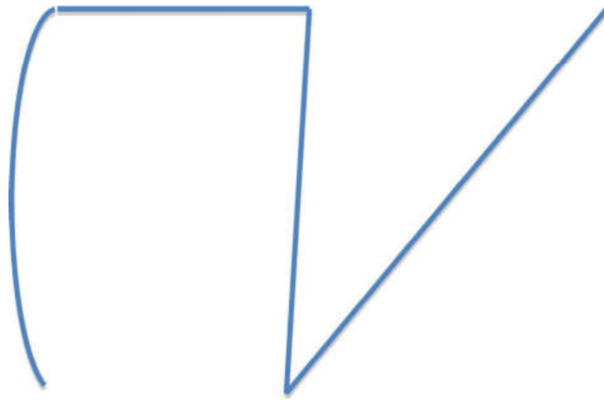
From the tip of this line an oblique line is drawn at angle of 60 degrees downwards with a length of x+ y/2. From the medial end of the line draw another line at 45 degrees with same length. The two skin flaps were elevated as fasciocutaneous flaps and one flap is moved to the defect and the other is transposed to cover the first flap's donor site.



We have done this procedure for 17cases of pilonidal sinus and 3 cases of sacral pressure sores of grade 4.

Distribution of Cases

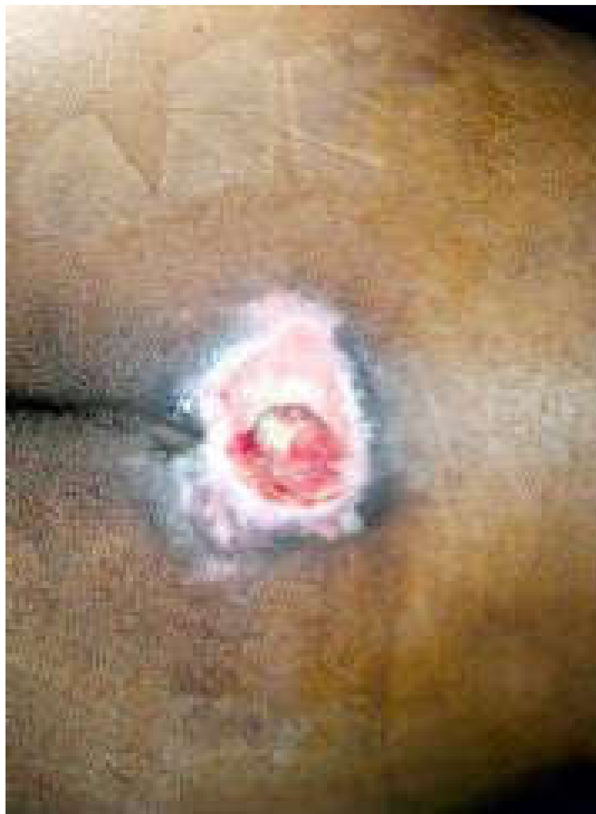


Fig. 1: Sacral pressure with exposed bone

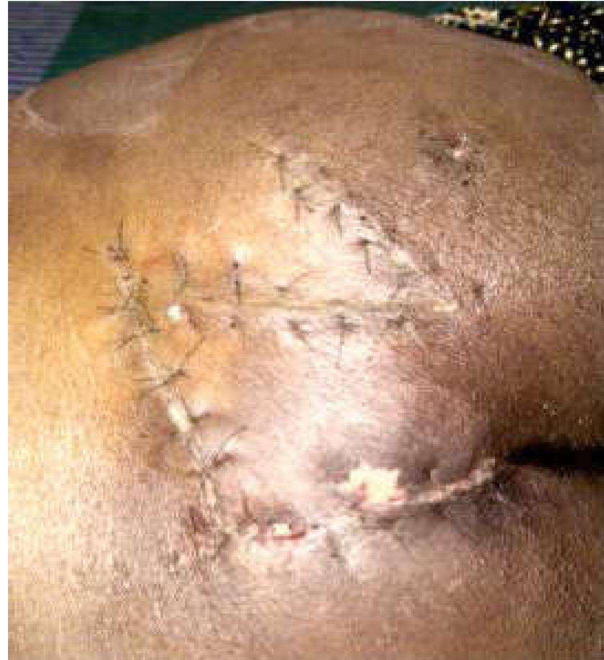


Fig. 2: Flaps inset in immediate postoperative period

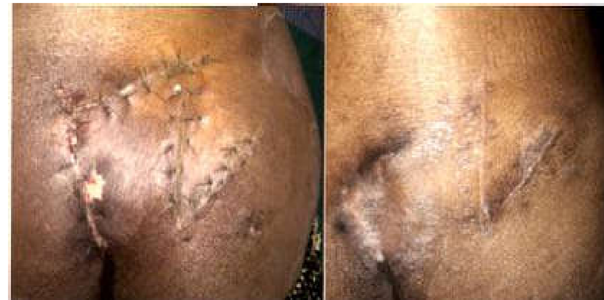


Fig. 3: Postoperative after 90 days

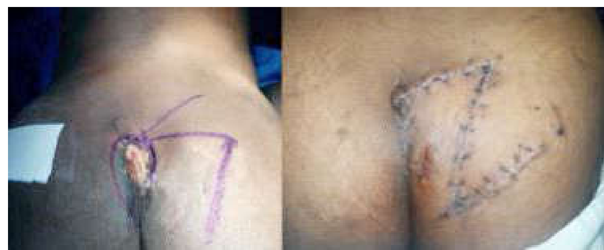


Fig. 4: Pilonidal abscess drained acute phase with flap design.

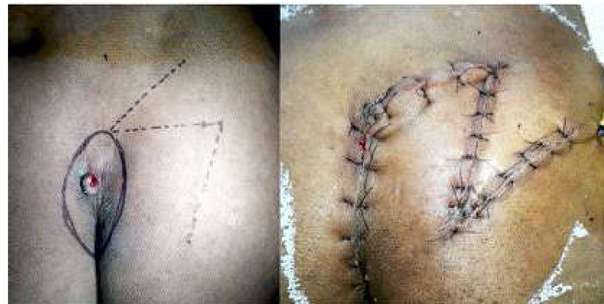


Fig. 5: Postoperative picture. See the scar is deviated away from the midline

Table 1: Age distribution

	10-20yrs	20-30yrs	30-40yrs	40-50yrs
Pilonidal sinus-elective	+	5	4	2
Pilonidal sinus -acute	3	3	-	-
Sacral pressure sore	-	-	-	3

Table 2: Time taken for surgery and anesthesia

Type of Case	Time Taken	Anesthesia
Pilonidal sinus-elective	45 to 60 mints	Subarachnoid block
Bed sore	1hr	General anesthesia with prone position.

Table 3: Complications

Complications	Number of Cases	Cases which had Complications
Delay in healing	4	Acute pilonidal sinus and Pressure sores
Flap necrosis	Nil	-
Prominent scar after healing	3	Mild hypertrophy

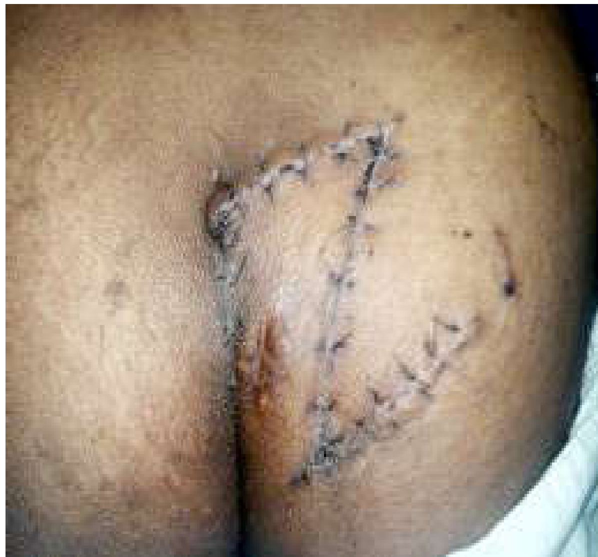


Fig. 6: Another case of pilonidal sinus excised with flaps

Discussion

The surgical procedures for pilonidal sinus excision are wide excision and local advancement flaps, Limberg's flap and other local flaps. They are having some difficulty in complete tension free closure and the scar is very prominent. We have tried an unequal angled Z plasty for the coverage of the resected area and the results are very gratifying. The midline scar is shifted to the side and it is retaining the curvature. The depth of the natal cleft is reduced and hence chance of recurrence is less. The final scar is found to be very thin and no sensory symptoms like itching or hypertrophy seen in statistically significant cases.

The same procedure we have done for sacral pressure sores too and the results are very satisfactory and the healing was better than other flaps.

The bookman's flap was described earlier for pressure sores of 5cms and less and it has a variation of the angle with which the second flap is taken and the measurement is different from our technique.

The follow up of our cases was for 1 year and there was no recurrence. The hypertrophy of scar was seen only in 3cases where there was tendency for hypertrophic scar in them. The delay in flap healing was seen in few cases where we have done this procedure in acute phase. With our experience we recommend this procedure for pilonidal sinus excision and reconstruction. The same procedure is useful for pressure sores in the sacral area too.

Conclusion

A novel surgical technique we are describing for the treatment of primary repair of pilonidal sinus excision defect and it can be used for the sacral pressure sore too.

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