



PILONIDAL SINUS EXCISION AND COVERAGE WITH LIMBERG FLAP WITH OR WITHOUT SUCTION DRAINAGE.

Dr Rajesh Girdhar

Dr Bhupender Singh

ABSTRACT

Background: Pilonidal sinus excision combined with flap have an issue of wound healing. Various modalities are used to reduce infection. **Objectives :** To compare the rate of complications and hospital stay in patients with drain after surgery and without drain after surgery. **Methods:** A retrospective study of patients that underwent limberg flap in last 4 years in PGIMS Rohtak was done. All complications like wound infection, suture dehiscence, flap necrosis were evaluated. **Results:** A total of 20 cases of limberg flap are included in this study. All patients were of pilonidal sinus. Suction drain was used in 10 cases and 10 cases were done without use of suction drain. Duration of drain was for 5 days. Rate of wound infection was higher in patients without drain (n=5 i.e. 50%). **Conclusion:** Suction drain after limberg flap surgery is better option to reduce wound infection.

KEYWORDS : pilonidal sinus, limberg flap

INTRODUCTION

Pilonidal sinus is an abnormal tract in the skin in natal cleft region that usually contains hair and skin debris. The term pilonidal is derived from Latin (nest of hairs), coined by Richard Hodges in 1880. This condition is more common in Caucasians due to hair characteristics and growth patterns.

Rhomboid excision and coverage of defect with limberg's flap is the widely accepted surgical management for pilonidal sinus now a day.

In all cases post op intravenous antibiotics ie. Ceftriaxone plus sulbactam and metronidazole was given. Rhomboid excision of the tract was done with two angles of 60 degree and two angles of 120 degree. Limberg transposition flap was done from adjacent healthy gluteal region to fill the defect. Flap was sutured in two layers, inner with 2-0 polyglycolic acid and skin with 2-0 nylon suture. Two suction drains of size 12 fr were placed of size. Patient was discharged on day 6 post op. All patients with no complications were discharged with oral antibiotics Amoxicillin with clavulanic acid for next 5 days. Infective cases were treated as per culture sensitivity guidance. All complicated infected cases were managed conservatively. No flap necrosis was seen. No resurgery was required in any of the cases.

First dressing change was done on 5th post op day of surgery.

Results

20 cases of limberg excision of sacrococcygeal pilonidal sinus were included. All patients were managed with limberg flap only. In 10 cases negative suction drain was used and in another 10 cases no drain was used.



Image 1 : - Pilonidal sinus operated with negative suction drain in situ.

Wound infection was found to be higher in patients where no drain was used, n=5 out of 10 patients ie. 50%. whereas only one case had wound infection in cases where drain was used ie. 10%. no flap necrosis was seen in any case. Hospital stay was more in group where no drain was

placed. Hospital stay for patients with drain was 5 days and for patients without drain was 10 days.

Table .1 Demographics of patients included in study.

Number of cases	20
Mean age of patient	33
Gender ratio (M:F)	20:0
Average hospital stay in group with drain	5 days
Average hospital stay in group without drain	10 days

Table.2 Comparison of complications after surgery with Limberg's flap coverage with drain vs without drain.

Wound infection	01	5
Secondary suturing	None	3
Flap necrosis	None	None
Average hospital stay	05 days	10 days

Discussion

Limberg flap for sacrococcygeal pilonidal sinus was designed by Limberg in 1946¹. This flap was easy to perform and sutures are away from midline leading to tensionless flap skin in midline thus preventing maceration of skin due to sweating, erosion and scar formation. This flap is used since 1980's regularly². This study shows use of drain reduces flap infection, seroma formation less morbidity and reduced hospital stay³ (table 2).

Overall rate of complication was 50% as compared to 10% in group where the drain was used C. Birsil et al (2011). In there study of limberg flap with and without drain⁴ shows complications in 29.6 in without drain to 17.8% with drain. Many authors have claimed that flap technique are superior to primary closure and lay open^{5,6}.

Drain was strongly recommended in pilonidal sinus operations, especially after flap surgery⁷ Complications after limberg flap reconstruction is not uncommon which mainly consists of minor superficial wound infection to flap necrosis along with seroma, deep infection⁸. In another series of limberg flap, through wound complications like seroma, infection occurred in 3% of patients. With drain which is less our complication ie 10%.our patients were only 10%⁹. In some series⁴, No role of drain after pilonidal sinus excision and flap coverage is reported. Most series shows drain placement is useful after excision and flap^{10,8}.

We removed drain after 5th day post surgery whereas some author have reported drain removal as early as 2nd day post op.

Conclusions

Placement of drain after pilonidal sinus excision and limberg flap surgery is useful tool to reduce the incidence of wound infection, seroma formation thus reducing hospital stay and morbidity.

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