

ORIGINAL RESEARCH

Role of Modified Bascom Procedure in the Treatment of Pilonidal Sinus

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ABSTRACT

Background:An infection of the natal cleft and sacrococcygeal area that affects mostly teenagers and young adults. The biggest disadvantage is wound healing. The lack of a superior surgical procedure is due to the numerous proposed surgical techniques. The study will describe the modified Bascom procedure and its effects in individuals with pilonidal illness. **Objectives:**The purpose of this study is to evaluate the modified Bascom procedure and its results in patients with pilonidal disease.

Materials and Methods: From October 2020 to May 2021, patients presenting to JSS Hospital, Mysuru with pilonidal sinus were studied prospectively. Patient selection is based on a thorough history, physical examination, and basic pre-operative examinations. Thirty cases receive modified Bascom. The patient's rate of cure, postoperative complications, and recurrence are observed.

Results: In this study of 20 patients, there was a 9:1 male preponderance. 20.46 + 9.42yrs mean age of presentation Pilonidal sinus is widespread in persons who sit for long periods of time as drivers, students, etc. Acute pilonidal sinus to chronic discharge sinus. These patients' hospital stay, healing time, wound infection, wound dehiscence, and recurrence were evaluated, and the results were favourable. Our patients had wound infection and dehiscence, although the rate of recurrence and complications, hospital stay (4.42 + 1.24 days), and wound healing time (19.6 + 1.22 days) was low compared to previous operations.

Conclusion: Study demonstrates pilonidal illness affects guys in their 30s and 40s. Occupation and local anatomical factors play a role in illness development. Pilonidal disease is diagnosed clinically. There are several options for treating pilonidal disease. The primary closure is the most effective, with low recurrence rates, less problems, and faster healing.

Keywords: Pilonidal disease, natal cleft, sinus, modified bascom procedure, complications, recurrence, wounddehiscence.

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INTRODUCTION

The pilonidal sinus is a persistent subcutaneous abscess in the natal cleft that drains spontaneously through the holes on either side of the sinus. The term Pilonidal Sinus is derived from the Latin words Pilus, which means hair, and nidus, which means nest. Despite the fact that the exact pathophysiology of pilonidal disease is still a mystery and subject to debate, hair appears to play an important role in the process of infection and the maintenance of granulation tissue in the sinuses. This is consistent with the clinical fact that pilonidal patients are frequently hirsute and that pilonidal sickness occurs less infrequently in persons

with less body hair than normal.^[1,2] The treatment of chronic pilonidal illness is inconsistent, disputed, and difficult to implement. It is essential that the sinus tract be completely eradicated, that the overlying skin be completely healed, and that the condition is prevented from occurring again. It is possible that the surgical wound will be left open to heal (secondary intention). If all sinus tracts are completely excised, according to proponents of this approach, reduced wound tension allows trouble-free healing with no recurrence. However, this technique is not recommended for everyone. Alternatively, the wound may be closed to allow it to heal naturally through primary closure (primary intention).^[3] Generally speaking, methods can be divided into two categories: midline closure procedures (with the incision positioned within the birth cleft) and other techniques (where the wounds are located out of the midline). Primary closure proponents believe that the benefits of rapid tissue healing outweigh the risks. Various open and closed surgical procedures are described in the current literature as having a wide range of patient outcomes.^[3]

It is disputed whether or not to treat pilonidal sinuses, and a number of different therapeutic techniques have been documented in the literature. An ideal treatment should have a high cure rate, few surgical problems, a low rate of recurrence, no hospitalisation, no general anaesthesia, and as little discomfort and time away from work as possible for the patient⁴; however, this is not always the case. In this study, we intended to determine whether the modified Bascom method could be used to treat chronic pilonidal sinuses. The purpose of this study is to discuss the technical specifics, examine the advantages, and provide the outcomes of a modified Bascom technique that was used in patients with pilonidal disease. The technique was adjusted to make it more effective in treating pilonidal disease.

MATERIALS & METHODS

Sources of Data: Patients presenting to JSS Hospital, Mysuru with pilonidal sinus during the period from Oct-2020 to May-2021.

Methods of Collection of Data: Data will be collected by history taking, meticulous physical examination and appropriate serological investigations

Study Design: Prospective study

Study Period: Oct 2020 to May 2021

Place of Study: Department of Surgery, JSS HOSPITAL, MYSURU, KARNATAKA India.

Sample Size: 20 patients with pilonidal sinus

Inclusion criteria:

1. All patients with chronic pilonidal disease.
2. Patients who give a written informed consent.

Exclusion criteria:

1. Acute pilonidal abscess.
2. Recurrent pilonidal sinus.
3. Patients not willing to give written informed consent.

Study methodology:

After obtaining the necessary clearance from Institutional ethics committee, Patients who satisfy the inclusion criteria are taken up for surgery after history taking, meticulous examination and basic pre-operative investigations. Thirty of the cases undergo modified bascom procedure. Data documented are of rate of cure, rate of postoperative complications, rate of recurrence, avoidance of hospital admission, avoidance of general and spinal anaesthesia and minimal inconvenience and time off work for the patient.

Assessment tool:

Wound healing duration, duration of hospital stay, post op complications and recurrence rate.

Statistical analysis:

Descriptive statistical principles and Chi-Square Test.

Investigation and Interventions Required for Study

1. Complete heamogram
2. Renal function tests
3. Random blood sugar
4. Serum electrolytes
5. Liver Function test
6. HIV
7. HbsAg
8. Electro cardiograph
9. Chest radiograph-PA

Treatment:**Modified Bascom Procedure:**

Under spinal anaesthesia the patient lies in prone prone position. The buttocks are strapped apart and parts are painted and draped. An incision of 4–5 cm in length is then made approximately 2 cm from the midline. The incision is positioned so that it is alongside the area of the cleft in which the puncti are present. This incision serves these functions. First, it is used to enter the sinus system and curette out all hairs and infective granulation tissue. Second, through it the midline skin is released from its tethering to the post sacral fascia, and the depth of the natal cleft is reduced. Each pit is excised with the pointed no. 11 blade, removing a diamond-shaped piece of skin, but to include the epithelialized portion of the pit which extends down for 2–3 mm. The buttock strapping is then removed to relieve tension. A suction drain is placed in the cavity and the incision is sutured using non absorbable suture material.

RESULTS

This is a prospective study of management of pilonidal sinus using modified bascom procedure. All of our cases were having pilonidal sinus disease in the region of sacrococcygeal junction.

Table 1: Age distribution

Age in Years	No. of Patient	%
11-20	3	15
21-30	8	40
31-40	6	30
41-50	2	10
>50	1	5
Total	20	100

The age predominance was seen more between the age of 21-30 yrs and less common in the age group of 41- 50 and more than 50yrs.

Table 2: Gender Distribution

Gender	No. of Patients	%
Male	18	90

Female	2	10
Total	20	100

The sex incidence of pilonidal sinus is more common in males than female with ratio being 9:1.

Table 3: Occupation

Occupation	No. of Pts.	%
Student	6	20
Driver	6	20
Mechanic	4	13.33
Tailor	3	10
Clerk	3	10
Shopkeeper	3	10
Watch man	2	06.66
Agriculture	2	06.66
House wife	1	03.33
Total	20	100

Pilonidal sinus was more commonly seen in people who sit for long hours like skilled labours i.e drivers, tailors and student.

Table 4: Clinical Presentation

Mode of presentation	No of Patients	%
Discharge	10	50
Pain	7	35
Asymptomatic Sinus	3	15

Pilonidal sinus can present as sinus, cyst, abscess etc but more commonly present as discharging sinus.

Table 5: Duration of Hospital Stay

Days of Hospital Stay	No. of Pts.	%
1-3	10	50
4-6	09	45
7-10	01	05
>10	00	0
Total	20	100

The total duration of hospital stay was more in the 4-6 days group, with all the patients being discharged within 10 days.

Table 6: Duration of Wound Healing

Duration of Wound Healing	No. Of Pts.	%
01-10	0	0
11-20	16	80
21-30	3	15
31-40	1	05
Total	20	100

Table 7: Complications

Complications	No. of Pts	%
Wound Infection	3	15
Wound Dehiscence	2	10
Recurrence	1	2.5

NoComplications	15	75
Total	20	100

DISCUSSION

In our prospective study of the clinical management of Pilonidal sinus using modified bascom procedure 20 patients were treated at JSS Hospital in the department of general surgery from Oct-2020 to May-2021. The procedure was studied with respect to duration of healing, hospital stay, wound infection, wound dehiscence and recurrence.

The majority of the patients presented with the complaints of discharging sinus in the sacrococcygeal region. Few of the patient presented with complaints of swelling associated with or without pain and some were asymptomatic. These 20 patients underwent thorough clinical examination, specific and non-specific investigation. Specific investigation sinogram was done only in patients who were willing for and presenting with discharging sinus. Culture and sensitivity were done in patients with discharge or presenting with abscess. The diagnosis of pilonidal sinus was confirmed postoperatively by histopathology report. The patients were well informed regarding the complication ie wound infection and recurrence. All the patient were regularly followed up till the 6 months from the date of surgery.^[4-6]

Age incidence

The age predominance was seen more between the age of 21- 30 yrs and less common in fourth and fifth decade with mean 30.0 which coincides with the findings in Chintapatl et al series with the mean age of 30 years.^[5]

Sex incidence

The Indian male for obvious reasons like more hair distribution and occupation were noted to be more prone for the disease than the female counterpart. The male to female ratio is 9:1 in our study which correlated with the study of Oner Menten et al who noted the incidence of male to female ratio as 9:16.

Occupational incidence

Pilonidal sinus was more commonly seen in patients with occupation involving sitting for prolonged hours like driver, student, tailor, etc which correlates with studies of Da Silva et al.^[7]

Clinical presentation

Lord in his studies in 1984 termed pilonidal sinus as “post-operative ulcer with hair” as it can also present as recurrence disease. In our studies patient more commonly presented with discharging sinus followed by cyst and abscess which coincides with the findings of Hull et al.

Investigations

The diagnosis of pilonidal sinus is mainly clinical. Routine investigation showed increase in leukocyte count in few cases. In our study out of 20 patients 10 presented with discharging sinus. Culture and sensitivity was done for all the 10 patients with majority of them having purulent discharge and most common organism associated was staphylococcus aureus. The diagnosis was confirmed by histopathology report for all the cases.

Management

All 20 patients in our study underwent modified bascom procedure. This procedure had less duration of healing with median 19.56 days, less days of hospital stay with median discharge time being 4.46 days collaborating with findings of McCallum et al and Kronborg et al.^[8,9]

Complication

The study showed wound infection as the most common early complication. The total incidence of infection was 15 % which was similar to the findings of sondenna et al Mccallum et al. Complication of wound dehiscence was seen in 10% Of patients. These complications were successfully managed by oral antibiotics and alternate day wound dressing. Late complications like recurrence were seen in only 1 patient (2.5 %).

Follow up

All patients were followed up at regular intervals for 6 months for evidence of wound infection, recurrence.

CONCLUSION

In our study 'ROLE OF MODIFIED BASCOM PROCEDURE IN THE TREATMENT OF PILONIDAL SINUS We emphasise the procedure's utility in the treatment of pilonidal sinus disease.

Based on our research, we have concluded that -

The vast majority of patients presented with discharging sinuses and pain. It is more common in young people (21-30yrs).

The male population outnumbers the female population.

It is more common in people who sit for long periods of time (skilled occupations), such as drivers, tailors, and students.

We investigated the role of the modified bascom procedure in the treatment of pilonidal sinus disease and found very promising results in terms of hospital stay, duration of wound healing, wound infection, wound dehiscence, and recurrence. The findings of our study are consistent with the findings of other studies conducted around the world. As a result, this procedure can be used more frequently and with greater success in the treatment of pilonidal sinus disease.

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