

Pilonidal sinus in males: To preserve or to obliterate the natal cleft

Sir,

Pilonidal sinus disease includes some clinical phenomena which occur in the soft tissues overlying the sacrococcygeal region. These consist of a cyst containing a thin, brownish malodorous fluid and epithelial debris or a sinus tract with one or more openings on the skin in or near the natal cleft. Hairs are frequently found in the cyst or protruding from the sinus opening. The ideal treatment of pilonidal disease should provide a high rate of cure with a low recurrence rate and should avoid hospital admission and general anesthetic while involving minimal inconvenience and time off work for the patient.¹ The primary closure technique is the most common technique in treatment of pilonidal sinus. This technique is especially suitable for the patient with a small and midline pilonidal sinus with no lateral ramifications. The aim of our study is to evaluate and compare the results of 2 different methods of excision and the primary closure of pilonidal sinus, one of them will preserve and the other will obliterate the natal cleft. This study included 40 male patients with pilonidal sinus, their ages ranged between 20 and 29 years. The criteria for this study were male patients with non-infected sinus, less than one year history of disease, and no previous surgery. The duration of symptoms varied from one month to 10 months. All patients were subjected to complete history and full clinical examination with special attention to hair distribution, site and number of external openings and their distance from the anal verge and there is no difference between the 2 groups. The investigations carried out for all patients were plain x-ray for lumbosacral spines to exclude congenital neural canal sinuses, sinogram to identify the tract and exclude any cavity, and bacteriological study of sinus swab to rule out any infection. In this

study we achieved good results with regard to the prevention of sepsis and hematoma formation by applying the following points: 1) Avoidance of surgery in the presence of infection. 2) Shaving and disinfection of the natal cleft one hour before surgery. 3) Antibiotics given according to the results of culture and sensitivity tests (one prophylactic dose and for 2 days postoperatively). 4) Irrigation of the wound with diluted povidone-iodine solution. 5) Meticulous hemostasis. 6) The use of a redivac suction drain for at least 48 hours postoperatively. Patients were divided into 2 groups: group I consisted of 20 patients subjected to excision of the sinus with preservation of the natal cleft by suturing the skin edges to the presacral fascia.¹ Group II consisted of 20 patients subjected to excision of the sinus through a lateral approach (the advancing flap operation of Karydakis)² with obliteration of the natal cleft or cleft closure. Patients were nursed on their backs to exert gentle compression on the wound. The wound was observed daily and dressed as needed by dry dressings after cleansing by saline without using any local chemical. Comparative study between the 2 groups was carried out regarding to the duration of hospital stay, duration of healing, postoperative infection and the rate of recurrence. The duration of hospital stay was shorter when the preservation of natal cleft was used with a mean value of 3.50 ± 1.40 days. This value showed highly significant difference when compared to that of group II (**Table 1**). With regards to the duration of healing, group I showed a better rate of healing with a highly significant difference when compared to the results of the lateral approach of Karydakis in group II (**Table 1**). Only one patient (5%) with wound infection was found in group I who was managed by laying the wound open, frequent dressing and antibiotics. On the other hand, in group II, 2 patients had mild infection along the new area between the skin edges, they were managed by frequent dressings and antibiotics. The rate of recurrence was 5% (one

Table 1 - Illustrates the duration of hospital stay and healing (mean \pm SD in days) in both groups I and II.

Patients	Duration of hospital stay			Duration of healing			Return to work		
	Range (days)	Mean \pm SD	P-value	Range (days)	Mean \pm SD	P-value	Range (days)	Mean \pm SD	P-value
Group I	2-6	3.50 ± 1.40	<0.0001	7-10	8.9 ± 1.14	<0.0001	14-21	16.2 ± 1.2	<0.0001
Group II	4-11	6.55 ± 2.60		10-15	11.70 ± 1.65		14-25	17.1 ± 1.4	

SD - standard deviation.

patient) in group I and 10% (2 patients) in group II. Recurrence in group I occurred after 8 months while in group II, one patient showed recurrence after 9 months and the other after 12 months. The efficacy of any treatment can be judged only after adequate follow-up to establish complete eradication of the disease and exclude late complications. The effect on the patient can be assessed in terms of hospital stay, outpatient attendance and reoperation. The surgeon is more directly concerned with delayed healing and true recurrence as both may require further surgery. In the first group of patients treated by simple excision with preservation of the natal cleft, the mean hospital stay was 3.50 days and the mean healing time was 8.9 days. The results were less than that of McLaren³ who operated on 41 patients using this technique and reported a mean healing time of 11 days and this is in agreement with other studies.⁴ The mean time of hospital stay in the study of Karydakis² was 8.2 days. When this approach was used in our study (group II), we reported a mean time of hospital stay of 6.55 days, which is less than that of Karydakis. McLaren³ operated 41 patients using the technique of preservation of the natal cleft and reported a recurrence rate of 12% which is high compared to our result (5% recurrence in group II). In our study, closed suction drainage was used in all patients and a major factor in reducing the incidence of wound infection, one patient in group I, (5%) and 2 patients in group II, (10%). These results are similar to that of Karydakis² who reported that hematoma and infection ensued in 8.5% of cases. The recurrence rate in group II was 10% which is higher than that reported by Karydakis² who reported a recurrence rate of 1.5% and this may be due to the lower number of patients. Karydakis² reported that no recurrence occurred where the objective "No raphe, no wound and no scar at the depth" was achieved and the intact skin put at the depth seems not to inherit the vulnerability of the raphe. These results support the hair insertion theory and emphasize the fundamental point in the treatment of pilonidal sinus is to stop hair insertion. Comparative study between the 2 groups of patients revealed a highly significant decrease in both the mean time of

hospital stay and healing time when the preservation of the natal cleft and primary closure was used ($p < 0.0001$) and no significant difference in return to work. Also, the incidence of postoperative wound infection was lower in group I (5%) than in group II (10%) and even if infection occurs, the healing was faster for the midline wound. Added to the above points is the recurrence rate which was 5% in group I and 10% in group II. The fact that there were no significant difference in terms of wound infection or recurrence rate between the 2 methods and this is in agreement with Aydede et al.⁵ From the above discussion and comparative study, we can conclude that excision of the pilonidal sinus through the midline approach without obliteration of the natal cleft is a better operation when excision and primary closure of the sinus is indicated.

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