

Treatment of pilonidal sinus by phenol injection

S B Kelly, W J H Graham

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SUMMARY

This report reviews the treatment of pilonidal sinus by phenol injection in 54 patients. Forty-four patients were treated initially by phenol injection and this was successful in 70%. The median number of injections per patient was one (range 1–5) with a median hospital stay per injection of two days (range 1–17 days). The median time to complete healing for patients treated by injection alone was two months (range 1–32 months). These results compare very favourably with more radical methods of treatment.

INTRODUCTION

The correct treatment of pilonidal sinus is still undecided. It is most often treated by radical methods which usually involve a lengthy hospital stay and considerable time off work. Many different techniques have been tried including excision,¹ excision with primary suture² and Z-plasty.³ Goodall⁴ and Verbeck⁵ have reported a hospital stay of 18 days and 15 days respectively for excision with primary closure while Notaras⁶ and Goodall⁴ have reported a mean hospital stay of 17 days and 18 days respectively for excision without closure. Although these methods can be very effective, they are more painful and require repeated dressings. Lord and Millar⁷ described a simple deroofting treatment for pilonidal sinus performed under local anaesthesia. However, this technique is not ideal since 40% of the patients failed to co-operate with the dressing régime. The aim of this study was to review the results of treatment of pilonidal sinus by phenol injection in terms of cure rate, time for complete healing, number of injections per patient and hospital stay.

PATIENTS AND METHODS

Between 1964 and 1986, 54 patients with pilonidal sinus were treated by phenol injection as either all or part of their treatment. Most of these cases were under the care of one of the authors (WJHG); some, however, were patients of other surgeons. Details of the patients were obtained from a retrospective study of case notes. Forty-four were male, and 10 were female, with a mean age of 25 years (range 16–53 years). The median length of symptoms was four months (range 3 days–13 years). The patients were followed up until their sinuses had completely healed.

Craigavon Area Hospital, Craigavon, Co Armagh, N Ireland, BT63 5QQ.

S B Kelly, FRCS, Surgical Registrar.

W J H Graham, FRCS, Consultant Surgeon.

Correspondence to Mr Graham.

The method of phenol injection was similar to that first described by Maurice and Greenwood.⁸ Eighty per cent phenol was injected without pressure into the main sinus tract in order to sterilise infected contents and remove embedded hair and debris. Following induction of general anaesthesia with endotracheal intubation, the patient was placed prone on the operating table. The table was then split in the middle to obtain the 'jack-knife' position. After previous shaving of the sacral area, the buttocks were held apart with 7.5 cm strapping to expose the sacral area and anal verge. The skin of the area was cleansed with cetrimide and chlorhexidine solutions, and then dried and towelled up in the usual manner. The skin around the sinus was protected by smearing liberally with vaseline and the anus was protected by covering it with vaseline gauze. After careful probing, any loose hairs were removed with forceps from the sinus and from any of its side tracts. The main sinus tract was injected with a solution of 80% phenol using a blunt-nosed needle which fitted snugly into the sinus opening. The injection was performed slowly using the minimum of pressure to avoid phenol being forced into the tissue surrounding the sinus and causing a local inflammatory reaction. The injection was stopped when phenol was seen coming from any of the side openings and any excess was quickly wiped away. After one minute, pressure applied around the sinus tract expressed the phenol and brought loose hairs to the surface, which were then picked out. The whole procedure was repeated twice, each time leaving the phenol *in situ* for one minute, thereby giving a total exposure time of three minutes. The sinus was then washed out with saline and curetted. Vaseline gauze and a light dressing were then applied to the injected area. The patients were allowed home the following day and were instructed to have frequent baths. Strict hygiene of the area was emphasised during the healing period. After the sinus has healed, it is advisable to wash the natal cleft after defaecation rather than using toilet paper. Special care must be taken with loose hairs, particularly after a visit to the barber.

RESULTS

Of the 54 patients, 31 (57%) were treated by phenol injection alone and 23 (43%) required an additional procedure. In all, 97 injections and 35 additional procedures were performed (Table). The majority of patients required only one injection procedure (range 1–5). The median hospital stay per injection was two

TABLE
Procedures performed in 54 patients with pilonidal sinus

	Total procedures	Initial procedures
Phenol injection	97	44 (81%)
Excision without closure	9	—
Excision with primary closure	5	1 (2%)
Excision with partial closure	1	—
Incision	4	3 (6%)
Curettage	6	—
Z-plasty	1	—
Drainage of abscess	9	6 (11%)
Total	132	54 (100%)

days (range 1–17 days) with more than 85% of patients staying for two days or less. Of those who stayed for longer than two days, most only stayed for 3–5 days. One patient stayed nine and another 17 days, both having had an abscess lanced shortly before injection. The patients treated by injection alone had a median time for complete healing of two months (range 1–32 months). Only four patients took over one year for complete healing to take place, having healed initially but requiring a further injection as the sinus had recurred. Therefore, of the 44 patients who were treated initially by phenol injection, 31 (70%) were successfully cured by injection alone, requiring from 1–4 injections per patient. Thirteen (30%) required an additional method of treatment, such as excision with or without primary closure.

DISCUSSION

Pilonidal sinus is a relatively minor condition, yet the customary treatment is fairly radical. Phenol injection is a simple procedure requiring only a short hospital stay. Ideally, the injection should be done at a quiescent phase and a pre-injection course of an appropriate antibiotic may be useful in some cases. Postoperative discomfort is minimal and patients can return to work almost immediately. Our cure rate of 70% was slightly lower than the 73–91% reported elsewhere.^{9, 10} However, our hospital stay of two days compares favourably with the 2.9 days mentioned in an earlier report of this procedure in Northern Ireland,⁹ and was much shorter than the 15–18 days reported for more radical forms of treatment.^{2, 3} The time required for complete healing in our series (two months) was slightly longer than the 3–4 weeks reported by Stewart and Bell⁹ but compares favourably with the 11 days to 6 months reported for more radical surgical methods.^{11, 12, 13} Seventeen patients (39%) required repeat injections, but we believe that this may still be preferable to more radical surgery with the risk of delayed healing and subsequent wound breakdown. In summary, the very short hospital stay and early return to work together with a cure rate of 70% combine to make this method of treatment attractive for pilonidal sinus.

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