

## RESULTS OF SURGERY FOR INGROWING TOENAILS

J. D. GREIG

Ingrowing toenails are usually considered to be a minor surgical condition, but they are a source of great discomfort. Their surgical management in a general hospital has been studied.

**Patients and methods.** The records of all patients at Hairmyres Hospital, East Kilbride, undergoing surgery for an ingrowing toenail during a three-year period (July 1983 to June 1986) were reviewed. Follow-up was by postal questionnaire or direct interview. Three-hundred and sixty patients were sent questionnaires of whom 279 replied; in addition 54 were interviewed (response rate: 92%).

**Table I.** Recurrence rates for 556 procedures in 333 patients

	Number	Recurrence (per cent)	With symptoms (per cent)	Time to recur in months Mean (range)
Avulsion	211	172 (82)	168 (80)	6.1 (3 to 36)
Avulsion and phenolisation	275	147 (53)	77 (28)	8.3 (3 to 36)
Excision of nailbed	70	42 (60)	27 (39)	6.8 (3 to 12)

There were 240 males and 93 females with a mean age of 28 years (range 3 to 62). A total of 556 procedures were performed on these patients (left side 295; right side 261). The mean follow-up was 39 months (range 24 to 48).

**Results.** The recurrence rates for each surgical procedure are shown in Table I: 92% of recurrences occurred within 12 months, presenting as ingrowing toenails, dystrophic nails, or spicules. Most patients undergoing simple avulsion developed a symptomatic recurrence. Although the recurrence rates for phenol and surgical ablation also were high, symptoms were much less common.

**Discussion.** These results suggest that the optimal treatment for ingrowing toenails is avulsion and phenolisation,

which is in accordance with other studies (Robb and Murray 1982; Sykes 1986; Tait and Tuck 1987). The high incidence of recurrence (82%) for simple avulsion also is similar to that previously reported (Sykes 1986). In general, simple avulsion is not recommended but is often used as a temporary measure, particularly in general practice, to relieve severe pain or subungual infection while patients are awaiting definitive surgery.

Reported recurrence rates for ablative procedures vary widely. A comparison of 32 collected studies demonstrated that the results of surgery are dependent upon the surgeon, the procedure and the method of study (Sykes 1986). The high recurrence rates for all groups in this present review are unsatisfactory, a fact which had not been appreciated by us before this study. The figures may reflect surgical practice in most general hospitals, perhaps because the treatment is often delegated to inexperienced junior staff.

As a result of this study, patients at Hairmyres Hospital are now routinely treated by a lateral nail-fold avulsion and phenolisation. The technique has been modified from Robb and Murray's (1982) description: under local anaesthesia and digital tourniquet, the lateral border of the ingrowing nail is removed, granulation tissue is curetted and the skin around the raw gutter is protected with paraffin jelly. Using a 1 ml syringe and a 23G needle, phenol is drop-pipetted onto the nailbed along the gutter and left for a period of four minutes. After this time the excess is removed and residual phenol neutralised with methylated spirit.

**Conclusion.** This study emphasises the value of an audit in improving the standard of treatment of a condition which is often considered to be trivial and unimportant.

The author wishes to thank the consultant surgeons at Hairmyres Hospital for supporting this work and providing research funds; and Mr J. R. Anderson for helping in the preparation of the text.

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

## REFERENCES

- Robb JE, Murray WR. Phenol cauterization in the management of ingrowing toenails. *Scott Med J* 1982;27:236-9.
- Sykes PA. Ingrowing toenails: time for critical appraisal? *J R Coll Surg Edinb* 1986;31:300-4.
- Tait GR, Tuck JS. Surgical or phenol ablation of the nail bed for ingrowing toenails: a randomised controlled trial. *J R Coll Surg Edinb* 1987;32:358-60.

J. D. Greig, FRCS, Surgical Registrar  
University Department of Surgery, The Royal Infirmary, 1 Laurieston  
Place, Edinburgh EH3 9YW, Scotland.

© 1989 British Editorial Society of Bone and Joint Surgery  
0301-620X/89/5R30 \$2.00  
*J Bone Joint Surg [Br]* 1989;71-B:859.