Minimal follow-up after functional endoscopic sinus surgery. Does it affect outcome?*†

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SUMMARY

One disadvantage of functional endoscopic sinus surgery is the frequent post-operative cavity toilet considered necessary by most surgeons, which is not only costly but also very unwelcome to patients. In the Royal Berkshire Hospital in Reading, we have reviewed a series of 120 patients who underwent FESS over an 18-month period with minimal post-operative follow-up (first visit for cavity toilet at 2 weeks and, if possible, only one further visit) in order to assess outcome. The percentage of patients whose presenting symptom had significantly improved or was cured was 78%, and the mean number of follow-up visits was 2.8. We conclude that our policy of minimal post-operative follow-up following FESS allows results comparable with other series, and this policy should be further evaluated.

Key words: endoscopic sinus surgery, results, follow-up, outcome

INTRODUCTION

Functional endoscopic sinus surgery has now replaced many traditional procedures for sinusitis, with excellent results in most series. However, the frequent post-operative visits usually recommended for cavity toilet are very unwelcome to patients, and may even sway surgeons in favour of "simpler" procedures in departments where resources for such visits are in short supply. A regime typical of many endoscopic sinus surgery practices in the UK and elsewhere is quoted by Lund and McKay (1994): "endoscopic cleaning [...] of ethmoid cavities [...] initially between 5 and 10 days and thereafter at 1 to 2 weekly intervals until the cavity was satisfactorily healed." Indeed, some surgeons use an even more intensive cavity toilet regime - e.g., Wigand (1990) begins his post-operative regime with cavity toilet daily for up to a week. However, many patients undergoing endoscopic sinus surgery reply "No" to the question: "Would you go through it again?", despite a successful surgical outcome, simply because of the unpleasantness of post-operative cavity toilet (Fairley, unpublished observations). It seems clear that if endoscopic sinus surgery could be followed by a less intensive post-operative cavity toilet regime without compromising outcome, the change would be welcome to patients and budget-holders alike. In the Royal Berkshire Hospital in Reading, we have reviewed a series of 120 patients who underwent FESS over an 18-month period with minimal

post-operative follow-up in order to assess results and compare them with recently published results of endoscopic sinus surgery followed by a more intensive post-operative regime.

PATIENTS AND METHODS

Case-note review was undertaken of all patients who had undergone functional endoscopic sinus surgery in the Royal Berkshire Hospital between September 1992 and March 1994. During this 18-month period, a policy of minimal post-operative follow-up was pursued in the department, with cavity toilet performed first at two weeks after surgery and in most cases, where the appearance of the cavity was satisfactory, only a second and final visit at about three months. Wherever required (depending on the appearance of the cavity and any postoperative complications or residual symptoms) more frequent cavity toilet was performed. Broad-spectrum antibiotics were used as a routine as well as betamethasone sodium phosphate drops, applied in the head-down position. In every case, a note was made of the primary presenting complaint and whether or not this was significantly improved at the time of discharge. Patients requiring revision surgery to control the primary symptom, or regular conservative treatment in the form of topical steroids beyond two months after surgery were considered "failures", although in allergic patients it was assumed that measures to control allergy would need to be continued even after successful surgery. Any revision surgery required and any complications were noted, as well as the number of visits to the

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out-patient department before discharge, and the total duration of follow-up.

RESULTS

The total number of patients undergoing functional endoscopic sinus surgery in the period under study was 137. Of these, adequate follow-up data were available in 120. The mean age was 45 years (range: 5-80 years). In all cases the diagnosis was sinusitis or polyposis or a combination of both. Patients with massive diffuse polyposis were not excluded from the series, and there was some element of polyposis in 10% of patients. All cases involved one of three surgeons (RR, HW or NM), at varying stages on the learning curve for this technique. The percentage of patients whose presenting symptom had significantly improved or was cured was 78%. "Success" or "failure" varied considerably with presenting complaint (Table 1), patients with olfactory disturbances faring best. Twelve revisions were required (10%), and complications occurred in six cases (5%; see Table 2). The mean number of follow-up visits before discharge was 2.8.

Table 1. Patients with significant improvement in presenting symptom following functional endoscopic sinus surgery, classified according to presenting complaint.

main presenting complaint	n	no. improved	% improved
facial pain	47	37	79%
nasal obstruction	44	34	78%
olfactory disturbance	19	18	94%
discharge	8	4	50%
cough	1	1	100%
proptosis (due to sinusitis)	1	1	100%
total	120	95	78%

Table 2. Complications following endoscopic sinus surgery (n=120).

epiphora requiring dacrocystorhinostomy	1
epiphora resolving spontaneously	1
peri-orbital cellulitis	1
secondary haemorrhage	1
diplopia (mild, resolving)	1
hyposmia	1

DISCUSSION

Our "success rate" in this series is close to that quoted in several recently published series from major centres with a specialist interest in endoscopic sinus surgery (Stammberger and Posawetz, 1990; Kennedy, 1992; Lund and McKay, 1994). This is despite the fact that surgery was performed by experienced and inexperienced surgeons alike, patients with massive diffuse polyposis were not excluded (although some authors, such as Kennedy (1992), consider these patients to form a very poor prognostic group), and criteria for defining success in our series were stringent. Our results suggest that frequent post-operative cavity toilet may not be as critical as was previously thought, although a prospective, randomised controlled study would be required to clarify the precise relationship between postoperative care and outcome. The concept of minimal follow-up following endoscopic sinus surgery, although vehemently criticised by Kennedy (1992), is supported by the good results achie-

ved after endoscopic surgery in children despite minimal postoperative cavity toilet. Lazar and Younis (1993) perform this only once (two weeks post-operatively, under a general anaesthetic) and report 80% improvement after endoscopic sinus surgery in 210 children aged 14 months to 16 years. Lusk (1992) uses a similar regime, as do Gross et al. (1989), who report 92% improvement in a series of 50 children, aged 3-15 years. These authors all use broad-spectrum antibiotics and topical steroids as a routine, as we did in our series, and it may be that in the absence of frequent post-operative cavity toilet these are more critical than in cases where an intensive post-operative regime is followed. Comparison between results of endoscopic sinus surgery in this series and others is confounded by the lack of a widely-accepted outcome measure. Some authors report improvement in individual symptoms (Hosemann et al., 1993; Lund and McKay, 1994), while others frequently report subjective change in overall symptoms (Levine, 1990; Stammberger and Posawetz, 1990; Matthews et al., 1991; Biedlingmaier, 1993). All these assessments suffer from the lack of a quantitative measure of overall debilitation due to symptoms of rhinosinusitis. Fairley (1993) has validated a 12-part "sinus symptom questionnaire" and such an instrument may pave the way towards standardised reporting of results of surgery for sinusitis, ideally in combination with a staging system for the severity of inflammatory sinus disease such as that suggested by Kennedy (1992). These techniques might both be applied to a prospective, randomised controlled study to build on our preliminary evidence that minimal follow-up after functional endoscopic sinus surgery is not incompatible with good outcome.

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