Clinical audit

Routine nasal surgery: an audit of outpatient follow-up

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Summary

The study objective was to assess the value of outpatient follow-up of patients who undergo routine uncomplicated nasal surgery. A total of 177 postoperative patients (117 males, 60 females) undergoing routine nasal surgery at the Raigmore Hospital, Inverness, was selected over a six-month period, 92 of whom (60 males, 32 females) were requested to return to the clinic for a follow-up session. A total of 72 (78.3%) patients attended for postoperative review. Of these, 55 patients (76.4%) had achieved a satisfactory result from surgery and 17 (23.6%) required additional treatment for persistent problems. The former group were pleased with the outcome of their operation and required no further treatment. Of the 25 patients who were prescribed medication at the time of discharge from hospital, 19 (76.0%) were still complying with the medication and required no further specialist assistance. The results suggest that routine follow-up of uncomplicated cases of nasal surgery is unnecessary. The good therapeutic results in the majority of cases indicate a need to decrease the number of routine reviews to reduce the high non-attendance rate and increase the proportion of new patients seen at outpatient clinics. The role played by general practitioners is vital to this cause. This would include minor postoperative care, monitoring of prescribed medication and review of patients with occasional postoperative problems.

Keywords: nasal surgery, follow-up, audit, postoperative care

Routinely performed nasal surgery, including septal and turbinate surgery, manipulation of nasal fractures and intranasal polypectomy forms the backbone of ear, nose and throat (ENT) surgery throughout the world. Non-radical procedures have been shown to account for up to 88% of the total number of nasal operations in a large sample of the population and the therapeutic effects (in terms of subjective symptoms) proved to be favourable in over 90% of cases.¹ Despite similarly encouraging results in numerous series, regular follow-up of these cases appears to be the norm in a great number of ENT units throughout the country

as indicated by personal and anecdotal observation. This practice is, however, contributory to long waiting lists and high non-attendance rates at outpatient clinics, resulting in fewer clinic spaces for new patients.

Our study was carried out as part of an audit, essentially to set standards, compare practice with them and implement changes as outlined in the audit cycle.² This concept of review and change is designed to achieve improved clinical standards and quality of patient care.³ The aim of our project was to appraise critically the results of routine nasal surgery, with particular emphasis on the need for follow-up.

Methods

The project was carried out at Raigmore Hospital, Inverness, a 650 bed District General Hospital serving a population of approximately 250 000 in the Highlands and Western Isles of Scotland. A total of 177 patients (117 males, 60 females) with an age range of 4–96 years (median 32 years) undergoing routine nasal surgery was selected during a six-month period. This group included most of the common nasal procedures, ie, septal surgery, turbinate surgery, intranasal antrostomy and simple polypectomy but did not include any major form of paranasal sinus surgery, rhinoplasty or procedures for nasal tumours. Approximately half of these patients (92) with an age range of 18–74 years, median 35 years (60 males, 32 females) were requested to return for a follow-up appointment at the outpatient clinic at six months following surgery (table 1). The selection of patients for follow-up was based on any concern that the surgeon may have had about the outcome of the procedure, due to the severity of the pathology and/or technical difficulties encountered at operation. Following the proposed postoperative review period, the total number of patients who attended for follow-up was recorded. In addition, the following other factors were noted:

- the results of surgery, including postoperative clinical appearances and the patients' subjective symptoms, measured by the patients' usual assessment, eg, alteration of nasal obstruction, rhinorrhea, etc.
- the requirement for further management, either in the form of additional surgery or introduction of medication.
- the assessment of compliance with medication prescribed at the time of discharge from hospital, based on patient report.

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Table 1 Distribution of operations, follow-up appointments arranged and patients who attended for follow-up

Operation	Total (n)	Follow-up appointments arranged (n)	Attended for follow-up (n)
Excision of turbinates	3	2	1
Submucous resection	10	6	4
Intranasal antrostomy	17	9	9
Intranasal polypectomy	41	16	14
Septoplasty	43	34	26
Cauterisation of turbinates	63	25	18
Total	177	92	72

Results

Table 1 illustrates the distribution according to surgical procedure of the original 177 patients and the 92 patients followed-up. Twenty-six patients underwent a combination of two or more nasal procedures but were coded under the heading of the primary operation performed. Of the 92 patients given follow-up appointments, 72 (78.3%) attended and 20 (21.7%) failed to do so without a valid reason. These 72 patients were further analysed and divided into two main groups:

Group 1: 55 (76.4%) who had achieved a satisfactory, good or excellent result from the surgery as judged by the postoperative clinical appearances and subjective symptoms (95% confidence interval 65–86).

Group 2: 17 (23.6%) whose results were suboptimal and required further treatment (95% confidence interval 14–35).

Group 1 patients were satisfied with the results of the operation and no further treatment was planned. In Group 2, three required further surgery, eight were started on long-term medication in the form of topical steroid drops or sprays with or without antihistamines and six patients were re-prescribed the medication they were started on at the time of discharge but had failed to comply with (see table 2).

Long-term medication was prescribed (on discharge from hospital) in 25 of the cases who attended for follow-up. Nineteen patients were still taking the medication and six patients (the group mentioned above) were no longer doing so.

Discussion

Regular critical analysis of current methods of practice in medicine is essential to maintain

Table 2 Further treatment instituted at postoperative review (n = 17).

Operation	Further surgery	Initiation of medication	Represcription of medication
Septoplasty	2	4	2
Cauterisation of turbinates	–	1	–
Intranasal polypectomy	1	–	1
Intranasal antrostomy	–	3	2
Excision of turbinates	–	–	1
Total	3	8	6

high quality clinical care to our patients. Previously set standards require to be periodically reviewed and occasionally altered to achieve this objective. Medical audit, by setting guidelines, appraising results, and implementing changes is an invaluable tool for this purpose. The Australian Clinical Review (1981–7), in analysing 71 clinical audit studies, had the potential to identify problems and therefore to induce change and improvement.⁴ Audit, therefore, is an instrument for change, the organisation of which can be made as simple as the tasks involved would allow. Besides achieving the principal goal of improving the quality of patient care, audit also has potential to alter and strengthen other aspects of hospital practice and organisation, our project being a prime example of such a situation, where ENT clinic waiting lists are notoriously long.

This study of patients who had undergone routine, uncomplicated nasal surgery enables several conclusions to be drawn. The results of surgery, in keeping with those from numerous other studies, demonstrate high rates of symptomatic relief and good clinical appearances for common minor nasal procedures. Of the 92 patients given a follow-up appointment, 20 (21.7%) did not attend and it may reasonably be presumed that these individuals themselves felt that there was little value in a follow-up appointment. All these patients were contacted and offered another appointment if they felt it was required. Of those who did attend, 55 (76.4%) patients were entirely satisfied and required no further treatment, leaving 17 (23.6%) patients requiring additional treatment. These results were obtained from a population of patients where the surgeon already had concerns about the outcome. Three of these patients required further surgery, the remaining 14 being prescribed medication for added benefit. Assessment of compliance with prescribed medication on discharge confirmed that the majority (76.0%) were continuing to take the medication. However, this may be an overestimate since it is based on patient report only.⁵

Several studies of similar procedures have reported equally encouraging results. Appraisal of a group of patients having submucous resection has shown low rates of short- and long-term complications, with short-term relief of nasal obstruction in 93.4% of cases and

Summary/learning points

- good therapeutic results are obtained in the vast majority of cases of routine nasal surgery
- outpatient follow-up of uncomplicated cases of routine nasal surgery should be minimised to help reduce long waiting lists and high non-attendance rates
- general practitioners should play a key role in the postoperative management of these patients to help achieve these objectives
- education of patients and general practitioners about postoperative care, possible problems and management strategies is mandatory

Box 1

long-term (average 23.5 months) satisfaction rate of almost 70%.⁶ Septoplasty has been shown to be successful in relieving nasal obstruction in 70.5% of patients.⁷ A relatively recent study on the effectiveness and safety of inferior turbinectomy has shown relief of nasal obstruction in 82% of patients, with wide clean nasal airways on anterior rhinoscopy in 88% at an average period of 12.3 years after surgery.⁸ Our own concurrent study on the results of septal surgery has shown an improvement in nasal breathing in 84% of patients.⁹

Routine follow-up of cases of simple nasal surgery is a time-honoured practice which is still carried out in many hospitals throughout the country. The results of this project demonstrate good results in terms of patient satisfaction and clinical appearances in nearly 80% of cases at the first follow-up appointment, raising doubt about the need for routine follow-up. The results indicate that postoperative review is unnecessary unless a complication has occurred or a less than satisfactory result is anticipated. An exception could also be made for those patients operated upon by inexperienced junior surgeons who might wish to assess their results in the outpatients clinic. Depending on their level of experience, trainees should review at least some of their operative cases. These should include most patients who have undergone nasal septal surgery, as this can frequently be difficult and the results are not always entirely predictable. Cases of revision septal surgery, even if undertaken by more experienced surgeons should perhaps be reviewed to ensure a satisfactory result. Although a minority of patients will require further treatment, those with symptoms following minor nasal surgery could be checked by the general practitioner and sent back to the hospital if necessary. Follow-up of some patients is probably essential for quality control but with continued pressure on waiting lists,¹⁰ unnecessary follow-up should be minimised. Recent research on the patterns of attendance at outpatient clinics has shown that as many as 87% of attendances were follow-ups, leaving only a small proportion of new patients being seen.¹¹ An independent report by the National Audit Office states that waiting times for first routine appointments at ENT clinics can be as long as 72 weeks, with the same specialty having the highest non-attendance rate (13–26%).¹² Maintaining strict control over follow-up appointments would assist in reducing waiting times and increase the proportion of new patients seen. It would also help to reduce the non-attendance rate of review patients, and the consequent waste of resources. The National Audit Office has proposed that health authorities ensure that hospitals and general practitioners take action to reduce inappropriate attendance where possible through agreeing and carefully introducing protocols for care which set out their respective roles.¹²

As a result of this study, several changes have been made in the postoperative management of patients undergoing routine nasal surgery in our hospital. Follow-up review appointments

Routine nasal surgery: guidelines to general practitioners

- instructions given on postoperative care including the prescription of short- and long-term medication and removal of splints, sutures and dressings
- enumeration of features suggestive of post-operative complications, eg, pain, bleeding, signs of infection and methods of immediate management
- access to early specialist advice and referral for both short- and long-term problems made available if required

Box 2

are arranged only in exceptional cases which include difficult operations where a suboptimal result is expected or where a complication has occurred in the peri-operative period. The great majority of patients are reassured that the outcome of their surgery is expected to be good, and that, if their symptoms have improved to their satisfaction, no further follow-up is needed. They are, however, given written guidelines on discharge to bring to their awareness the possibility, albeit infrequent, of symptoms occurring during the postoperative period. Features that would warrant seeking immediate attention either at the hospital or doctor's surgery include persistent pain, bleeding or signs of infection, especially in the early postoperative period. Patients who experience long-term persistent or recurrent nasal symptoms are also instructed to contact their general practitioners who would refer them back to the specialist unit if appropriate. To achieve these objectives the role of general practitioners is fundamental. The ideal would be to permit them to use greater initiative and responsibility in the care of their patients, but not to overburden them with an excessive workload. The general practitioner's role would include the initial and subsequent prescription of medication, removal of nasal splints, dressing and sutures where indicated and the review of their patients on a medium to long-term basis whenever indicated. Education of general practitioners is mandatory to enable them to carry out these minor postoperative duties and deal with occasional problems encountered by patients. This objective is achieved by means of a standard written protocol, forwarded together with the discharge summary, outlining the methodology of routine postoperative care, problems that may be experienced and their solutions. The proportion of patients who do seek consultation due to postoperative problems is small and thus this strategy would not result in a greatly increased workload for general practitioners. Following a suitable interval, there is scope to audit the general practitioner's views on the above protocol and their success in carrying out written advice. This strategy should result in an increased involvement by general practitioners in patient management and a potentially better understanding of management principles for minor

ENT problems. It should also improve access to specialist advice both for postoperative patients with problems and for new patients.

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