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Post-grommet follow up: what is needed and when?

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Introduction and methods

Grommet insertion is the operation most commonly performed on children in the western world.^{1–3} Despite this there is little evidence in the literature regarding the ideal follow up following surgery. We performed a retrospective case-note review of 50 children undergoing first grommet insertion to determine the outcomes of consultations and to attempt to formulate an appropriate follow-up protocol based on this evidence.

Results

This group of patients generated 156 follow-up appointments over 33 months post-operatively. One hundred and forty-three of these appointments included audiometry. One hundred and twelve (71 per cent) appointments resulted in further review only. Eight (5 per cent) appointments led to treatment of infection, 10 (6 per cent) led to relisting for further grommet insertion and 18 (12 per cent) resulted in patient discharge. The majority of infections occurred in the early post-operative period. It was noted that a number of patients underwent long term review (>24 months) despite normal hearing.

Conclusion

We concluded that very few appointments led to significant clinical activity. We would therefore recommend one early appointment at between one and three months post-operatively to detect the 1 per cent of patients who will have an underlying sensorineural hearing loss⁴ and to treat early infections. Further follow up can be successfully performed on an as-needed basis in coordination with primary care² and a rapid, open-access policy.

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Endoscopic resection for transitional cell papilloma

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Introduction

Transitional cell papilloma (TCP) is a locally aggressive, benign nasal tumour which has a high recurrence rate and is associated with malignant transformation. Traditional approaches to tumour excision include maxillectomy, lateral rhinotomy and craniofacial resection. Endoscopic sinus surgery has led to abandonment of traditional open approaches for benign inflammatory diseases and has been applied to some benign tumours. Endoscopic resection of transitional cell papilloma has been reported in selected cases with favourable results. We describe our initial experience with endoscopic minimal access surgery for transitional cell papilloma.

Method

We performed a retrospective review of transitional cell papilloma cases managed by endoscopic minimal access techniques in our establishment. Cases were analysed with reference to biographics, referral source, tumour site and stage (Krause classification), imaging modality, role of endoscope (diagnostic or therapeutic), surgical approach (wholly endoscopic, minimal access or as an adjunct to open), surgical intention (curative or debulking), surgical outcome, and complications.

Results

Thirteen cases of TCP of the nose and paranasal sinuses were studied (2001–2005). The majority of patients were tertiary referrals. According to the Krause classification for TCP, most patients were type three. The main imaging modality used was computed tomography scanning. Surgical intention was curative in all cases. Tumour resection was possible in all cases. Eleven cases were wholly resected by endoscopic means. Two cases of TCP required more extensive surgery: one required an osteoplastic flap and one required a midfacial access incision for excision. We had no complications in the post-operative period. There were two cases of recurrence.

Discussion

Endoscopic minimal access techniques allowed complete resection in 85 per cent of the TCP cases. Traditionally, this would have mandated the use of destructive midfacial approaches. Various techniques have been described for endoscopic resection, from endoscopic sphenoethmoidectomy and wide middle meatal antrostomy to the more traditional endoscopic medial maxillectomy. Endoscopic surgery offers many advantages, including avoidance of scars, increased illumination of the target area, better functional and structural preservation of the sino-nasal complex, minimal trauma to surrounding tissue, shorter hospitalization, and lower costs. We conclude that

endoscopic resection where local expertise is available is the treatment of choice in most cases of TCP. The future role of endoscopic resection will be further enhanced due to recent advances in image guidance and instrumentation.

A review of complications of tracheoesophageal fistula valves in North Glasgow

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Objectives

This review aimed to determine the rate of complications, admissions to hospital and further surgery associated with tracheoesophageal fistula speech valves and to determine if any factors were predictive of complications.

Methods

A case-note review was performed for all patients undergoing laryngectomy at Gartnavel General and Stobhill Hospitals over a 10-year period from January 1993 to December 2002.

Results

One hundred patients were identified; one was excluded due to lack of data. Ninety patients had a primary oesophageal puncture and eight a secondary puncture. Twenty-nine patients received pre-operative radiotherapy and 50 received post-operative radiotherapy. The initial valve was a Provox1 in 90 patients, a Provox2 in one and a Blom-Singer in seven. The current valve at the time of review (or at the time of death) was a Provox2 in 59 patients, a Provox1 in 24, a Blom-Singer in two, no valve in six and unknown in eight. Forty-five patients had had complications from the valves, most commonly granulation tissue formation. Thirty-five had had at least one admission related to complications and 34 had required further surgery. Sixty-seven were vocalizing with the valve. Radiotherapy and valve type were not statistically significant in predicting complications in this study. Primary puncture was associated with a higher rate of complications although the numbers without a primary puncture were small.

Discussion

The difficulty in determining whether complications were related to the valve or to other factors is discussed. Management of the complications is also discussed and the literature is reviewed.

Attrition rate from adult tonsillectomy waiting list

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Introduction

Concern generated by the risk of variant Creutzfeld–Jacob disease transmission during tonsillectomy resulted in a complete embargo on the operation until a safe strategy could be determined. This provided an opportunity to study the spontaneous resolution rate of the initial indication for tonsillectomy while patients were on the waiting list.

Aims and objectives

We aimed to study the spontaneous resolution rate of the initial indication for tonsillectomy in adult patients while

they waited for surgery. We also aimed to assess whether factors such as hospital, gender, age and duration on the waiting list affected the final decision to perform surgery.

Study design and method

This was a Scottish, multi-centre, prospective, cross-sectional study. The three hospitals involved were the Glasgow Royal Infirmary, Glasgow, the Crosshouse Hospital, Kilmarnock, and the Raigmore Hospital, Inverness. Patients aged 15 years and above whose name had been placed on the waiting list for tonsillectomy from March 1995 to December 2001 and who were still awaiting their operation were invited to attend a consultant-led reassessment clinic. The reassessment clinic ran for 15 months from March 2003 to May 2004.

Results

A total of 189 patients was identified. The male to female ratio was 1:2.5. One hundred and forty-six (77.2 per cent) patients attended the reassessment clinic. All 43 patients who failed to attend the reassessment clinic were removed from the waiting list. A total of 72 (38.3 per cent) patients were removed from the waiting list. The majority of patients who attended the pre-assessment clinic remained on the waiting list. The difference in attrition rate between hospitals was statistically significant ($p < 0.000$). Patient gender did not affect the final decision regarding surgery. Younger patients tended to remain on the waiting list ($p < 0.000$). Patients who had waited for a shorter period of time tended to remain on the waiting list ($p < 0.000$).

Discussion and conclusion

Our results showed that the majority of patients were on the waiting list for less than a year and a significant proportion of patients did not require the operation at reassessment. It was noted that there was a statistically significant difference between hospitals regarding the rate of attrition from the waiting list. This suggested that there was variation in practice among hospitals and was consistent with previous studies. Our findings support patients undergoing a period of observation before being listed for tonsillectomy, and we recommend that tonsillectomy be carried out as soon as possible following listing for surgery in order to maximize its benefit.

Post-tonsillectomy haemorrhage: randomized, controlled trial of cold versus bipolar dissection

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Objective

The study aimed to determine whether bipolar dissection tonsillectomy was associated with a higher post-operative haemorrhage rate than cold dissection tonsillectomy.

Design

A prospective, randomized, controlled trial design was employed.

Setting

The study took place in the otolaryngology department of a teaching hospital.

Participants

Two hundred and forty-five patients underwent elective tonsillectomy between July 2002 and November 2004.

Interventions

The patients were randomly assigned to either bipolar dissection or cold dissection (with bipolar haemostasis).

Main outcome measures

Post-operative haemorrhage rates, management (conservative or surgical) and blood transfusion requirements were recorded. The grade of surgeon and presence of a history of quinsy were also recorded.

Results

One hundred and forty-one patients (58 per cent) were randomized to the bipolar and 104 (42 per cent) to the cold dissection groups. Seventeen patients (12.1 per cent) in the bipolar group and eight patients (7.7 per cent) in the cold dissection group experienced haemorrhage ($p = 1.0$; differential 0.0, 95 per cent confidence interval -0.1 to 0.0). The haemorrhage rates for senior house officers, specialist registrars and consultants were 11.4 per cent, 10.3 per cent and 5.0 per cent, respectively. Two patients required surgical intervention, both from the bipolar dissection group. No patients required blood transfusion. A history of quinsy was not associated with an increased haemorrhage rate.

Conclusion

The difference in haemorrhage rates between groups and surgeon grades did not reach statistical significance. Nonetheless, the trend towards a greater incidence of haemorrhage in the bipolar group and in patients operated on by more junior surgeons raises concerns. The results of the National Prospective Tonsillectomy Audit and our own interim results led us to abandon this trial and to disallow the use of bipolar dissection tonsillectomy by junior members of staff.

A pilot study of hypoxia markers carbonic anhydrase IX and glucose transporter-1 in adenoid cystic carcinoma of the head and neck

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Introduction

Adenoid cystic carcinomas (ACCs) are slow-growing tumours with a propensity for perineural spread and distant metastasis. Their 'gold standard' treatment is surgery followed by post-operative radiotherapy, irrespective of tumour stage or grade. Unlike head and neck squamous cell carcinomas (HNSCCs), ACCs can recur locally or metastasize distally after years of seemingly successful treatment. Up to 31–50 per cent of patients present with distant metastasis despite locoregional control.^{1,2} As yet, there are no effective chemotherapeutic agents for ACC treatment, hence the search for a tumour-specific protein or characteristic that may assist in the development of novel therapies.

Hypoxia in tumours is associated with decreased radio-sensitivity³ and has emerged as a key factor in driving malignant progression via the transcriptional regulation of a number of genes, amongst them vascular endothelial

growth factor,⁴ glucose transporter-1 (Glut-1)⁵ and carbonic anhydrase IX (CAIX).⁶ The latter two genes, studied as endogenous markers of hypoxia, have been associated with poorer outcome in cervical carcinoma^{7,8} and HNSCC.⁹

In this study, the possible role of hypoxia in the chemoresistance and relative radioresistance of ACCs was investigated. In doing so, the usefulness of hypoxia modification therapies as an adjunct in ACC could be gauged. Expression of the CAIX and Glut-1 genes was assessed immunohistochemically in 22 cases of ACC and correlation to outcome was attempted.

Results

Expression of the CAIX gene was low, with a maximum score of one in only four patients. Scores for the Glut-1 gene were also minimal, with low scores again (two to six) in only five patients. There was co-expression of CAIX and Glut-1 in only two patients, with good areas of overlap for both markers. Due to the small study population, no clinical significance was expected although trends are commented on. There were nonsignificant trends towards development of local recurrence, distant metastasis and poorer survival in patients with tumours expressing either CAIX or Glut-1; the strongest trend regarded the risk of developing local recurrence in patients expressing CAIX ($p = 0.0811$).

Conclusion

In view of the low numbers of patients expressing CAIX and Glut-1, it is unlikely that hypoxia is the reason for the generalized poor long term ACC response to treatments. Expression of these markers seemed to confer poorer outcome; hypoxia modification treatments may hence still prove useful although not in the majority of patients. The use of these markers as prognosticators may be considered, although the key to successful treatment of ACC remains elusive.

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E-learning: a useful educational and screening tool in foundation year two and specialist year one training?

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Problem

Foundation doctors will have to acquire knowledge faster and more effectively than before as they will spend less time in ENT prior to commencing their higher training. Their training will be delivered through a variety of routes, including service-based clinical supervision, educational supervision, lectures, seminars and e-learning.

Method

We developed a pilot programme based on the procedure of tonsillectomy, aimed at those in foundation year two and specialist year one. The programme consisted of extended match questions, and we also introduced assessment of instrument recognition (requiring a photograph of every instrument to be matched to its name and correlated with its use).

Results and conclusion

Once core knowledge and understanding of the procedure had been electronically demonstrated, we planned to introduce a practical skills course in a simulated theatre environment. This would allow practical application of the necessary tonsillectomy skills.

Seven-year audit of parotid surgery

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Introduction

Salivary gland tumours make up 5 per cent of all head and neck tumours (excluding skin tumours). Their incidence is between one and three per 100 000. The parotid gland is the most common site of all salivary neoplasms. We undertook a retrospective audit of parotid surgery for 160 patients operated on between 1998 and 2004. We specifically looked at the use and importance of fine needle aspiration (FNA), magnetic resonance imaging (MRI), and facial nerve monitors or stimulators.

Methods

We reviewed the case notes of all patients who underwent parotid surgery in all departments (ENT, maxillofacial, plastic and general surgery) of the Ninewells Hospital, Dundee, from 1998 to 2004.

Results

Ninety-eight of 160 patients underwent FNA. Ninety-four per cent of diagnostic FNA results agreed with the final pathology. Thirty-one out of 160 patients received an MRI scan. Eighty-seven per cent of MRI scans performed accurately localized the tumour. Thirteen out of the

160 patients developed a permanent facial weakness. Thirty-nine per cent of those who developed permanent facial weakness had documented intra-operative use of a facial nerve monitor or stimulator. Forty-nine per cent of those who did not develop any facial weakness had documented intra-operative use of a facial nerve monitor or stimulator. This was not a statistically significant difference.

Conclusion

Fine needle aspiration and MRI are useful adjuncts in the management of parotid pathology. We need to ensure that the intra-operative use of nerve monitors or stimulators is documented.

Is there a role for contrast swallow studies in predicting the development of pharyngocutaneous fistula following major hypopharyngeal or laryngeal resection?: a retrospective review of seven years' experience

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Introduction

Development of a pharyngocutaneous fistula following laryngectomy or laryngopharyngectomy is a serious complication which can lead to significant patient morbidity. Traditionally, post-operative contrast swallow has been used to predict such development. In the last few years, water-based contrast media have replaced barium sulphate as the contrast materials of choice in radiological studies of the upper aerodigestive tract. Due to the physical properties of water-based contrast media, the details of the mucosal lining are not readily outlined, as with barium studies.

Methods

We retrospectively reviewed the records of 42 consecutive patients who underwent total laryngectomy with or without partial pharyngectomy, identifying those who had either clinically documented salivary fistula or abnormal gastrografin swallow.

Results

Between January 1998 and March 2005, 16 patients were identified for analysis. Of these, five had a confirmed clinical salivary fistula with normal post-operative, water-based contrast swallow studies. Six (37.5 per cent) other patients who had a leak shown by contrast swallow did not develop any clinical fistula. Only one patient (6 per cent) who had a clinical fistula had a corresponding leak at the surgical anastomotic site. The other four patients had early clinical post-operative leaks and had no swallowing studies initially, as planned. All patients were treated conservatively.

Conclusion

We obtained poor results in our series regarding both prediction and detection of formed pharyngocutaneous salivary fistulae using water-based contrast studies. We suggest that whilst water-based contrast swallow studies can be used to check the integrity of the surgical anastomosis prior to commencement of oral feeding, they should not be relied upon as a tool to detect or predict a fistulous tract.