# ENT trainee papers presented at the ENT Scotland Summer Meeting, 7 May 2015, Dunblane, Scotland, UK

## Validation of a patient-centred outcome questionnaire for pinnaplasty: a pilot study

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#### Introduction

Comparison between pinnaplasty techniques is difficult because of variation in how outcomes are reported.

#### Aims

To develop an outcome questionnaire for pinnaplasty, and assess its reliability and validity.

#### Methods

The Post-Operative Pinnaplasty Questionnaire was developed following semi-structured interviews. Post-Operative Pinnaplasty Questionnaire scores were compared with Glasgow Children's Benefit Inventory scores, ear measurements and complications in children undergoing pinnaplasty.

#### Results

Ninety-one patients were recruited. The Post-Operative Pinnaplasty Questionnaire correlated well with the Glasgow Children's Benefit Inventory (Spearman's rho = 0.776, p < 0.001). There were no correlations between Post-Operative Pinnaplasty Questionnaire scores and age, sex, complication or technique. Post-Operative Pinnaplasty Questionnaire score was not associated with severe prominence pre-operation, nor change or degree of prominence post-operation. Post-Operative Pinnaplasty Questionnaire demonstrated good internal consistency (Cronbach's alpha = 0.850) and ease of use.

#### Conclusion

We have developed a patient-centred outcome questionnaire that displays good face validity, internal consistency and correlation with quality of life. Furthermore, it is simple and easy to use. No correlations were seen with more 'traditional' measures of outcome such as complications or ear measurements.

#### A prospective study of laryngeal dysplasia

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#### Introduction and aim

The natural history of laryngeal dysplasia is poorly understood. We aimed to prospectively characterise patient and disease progress within our population.

#### Methods

A prospective database of patients managed at a laryngeal dysplasia clinic was employed. Patient demographics, microlaryngoscopy findings and treatments were collated. Patients were categorised as high or low risk in accordance with the ENT-UK consensus statement.

#### Results

Seventy-seven patients were followed for a mean of 27.2 months; 70.7 per cent continued smoking following diagnosis. Index biopsy demonstrated 31 cases of mild dysplasia (40.2 per cent), 29 cases of moderate dysplasia (37.7 per cent) and 17 cases of severe dysplasia (22.1 per cent). Lesion excision was undertaken in 25.9 per cent of the patients. Five patients developed progressive dysplasia and none developed carcinoma. Of the patients, 92.2 per cent met 'high-risk' criteria; however, no patient achieved initial monthly follow-up recommendations, with reviews typically taking place every three months.

#### Conclusion

No patients progressed to carcinoma during follow up. Most patients were 'high-risk', largely attributable to continued smoking. The recommended follow-up regimen for high-risk patients was not attained. Achieving compliance will have profound implications for clinical resources.

### A new analgesic regimen after (adeno)tonsillectomy in children: a pilot study

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#### Aim

To ascertain the efficacy of a new analgesic regimen introduced in children undergoing (adeno)tonsillectomy in view of the ban of codeine in children aged less than 12 years.

#### Methods

The study included 125 children undergoing (adeno)tonsillectomy over a 5-month period. Data on analgesics used peri-operatively and at home were collected prospectively. Analgesics included 3 doses of oral morphine to be used on days 3, 4 and 5.

#### Results

Pain scores were significantly better (p < 0.0001) in children with morphine compliance (n = 93) than in children without (n = 32). Those who were compliant with morphine were less likely to seek help out of hours (p < 0.0001).

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#### Conclusion

Oral morphine provides a reasonable alternative to codeine. However, one should bear in mind parental concerns and adverse effects of the drug, which were seen in a minority of patients (n = 11). Furthermore, anaesthetists were reluctant to prescribe the drug in cases of severe obstructive sleep apnoea or associated central apnoea (n = 7).

#### Adenotonsillar surgery for obstructive symptoms in children with previous severe laryngomalacia: a casecontrolled study

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#### Objective

To establish whether children with severe laryngomalacia are significantly more likely to require adenotonsillectomy for obstructive sleep apnoea.

#### Methods

A single-centre, retrospective, case-controlled study was conducted of 41 children (aged less than 1 year) with severe laryngomalacia, who required supraglottoplasty between January 2003 and 2010. A minimum of five years' follow-up data were available for all cases. Two controls per case were matched for age, sex and postcode. Fisher's two-tailed test was used for statistical analysis (GraphPad Software, La Jolla, California, USA).

#### Results

Nine out of 41 cases (22 per cent) underwent adenoidectomy with or without tonsillectomy, compared to 3 out of 82 in the control group (3.6 per cent) (p < 0.0091).

#### Conclusion

Obstructive symptoms are significantly more likely to necessitate adenoidectomy with or without tonsillectomy in children who have previously had severe laryngomalacia.

#### Has the smoking ban in public places had an effect on surgery for chronic otitis media in children in Scotland?

L Hamilton, M Van, C Kennedy, P Ross From Ninewells Hospital, Dundee

#### Introduction

Chronic otitis media with effusion (OME) is an extremely common presentation to ENT. Associations between OME and passive smoking have been debated in literature, with some studies suggesting that passive smoking is a risk factor for developing OME.

The prohibition of smoking in public places was introduced in Scotland in 2006 as a Scottish Government target strategy to reduce smoking incidence.

#### Aim

To determine whether there has been any significant reduction in the number of operations carried out for OME in Scotland since the smoking ban was introduced.

#### Methods

Data on ENT procedures for OME in children, from 2000 to 2012, were compared with smoking rates over the same time period in Scotland.

#### Results

The smoking rate has significantly reduced over this time period. The numbers of myringotomy and grommet insertion procedures conducted in children have also reduced, although not statistically significantly, since the smoking ban was introduced.

#### Conclusion

This study shows how public health initiatives can have a significant effect on the population's health.

#### Aspirin desensitisation: a case series

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#### Introduction

Patients with nasal polyposis, asthma and aspirin sensitivity (Samter's triad) are a challenging group to manage. They require multiple operations, and asthma is often worsened by polyposis and chronic sinusitis. Aspirin desensitisation benefits some patients by reducing the burden of revision surgery, significantly reducing symptoms (including asthma) and improving quality of life.

#### Ain

To present our experience to date of aspirin desensitisation in Samter's triad patients.

#### Methods

A retrospective analysis was conducted of patients on our aspirin desensitisation programme since 2012.

#### Results

Thirty-seven patients, with an average of four previous operations each, undertook the aspirin challenge. Thirty patients had a positive response and completed the challenge. Four discontinued the challenge. Patients reported sustained improvements in nasal discharge, nasal obstruction and asthma, but not hyposmia. Only 3 patients required revision surgery (mean follow up of 21 months).

#### Conclusion

Our data support the current evidence on aspirin desensitisation and further indicate that this is an encouraging treatment option for patients with Samter's triad.

#### Emergency presentations of head and neck cancer: a fiveyear retrospective review

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#### Introduction

Head and neck cancer emergency presentations are uncommon but persistent. However, there is little published literature on this aspect of cancer and the associated patient demographics.

#### Aims

To assess the incidence, patient profile, tumour site and stage of emergency cancer presentations in our region.

#### Methods

A retrospective review was conducted of a regional cancer database over a five-year period.

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#### Results

Emergency presentations accounted for 7 per cent of all cases. There was no difference in patient age and risk factors between the emergency and non-emergency presentations. The emergency presentation group showed a greater proportion of female patients compared to the non-emergency presentation group (30 per cent vs 15 per cent). All emergency presentations were at advanced stages of cancer. Oropharyngeal cancer was the commonest cancer in the emergency presentation group, but the third commonest in the non-emergency group.

#### Conclusion

Head and neck cancer emergency presentations are increasing annually. Female patients and oropharyngeal cancer showed greater representation compared to male patients and laryngeal cancer.

## 'Scrubbed in': developing a teaching app for head and neck surgery

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#### Introduction

For students, intimidation and unfamiliarity are often cited as barriers to effective utilisation of the operating theatre learning opportunity. This is further hindered by the requirement of the surgeon's attention elsewhere.

The majority of students in the UK now own a smartphone or tablet for which the 'opportunistic' learning potential is widely recognised. However, in 65–86 per cent of medical apps (software applications), healthcare professionals have had little or no involvement in their development.

#### Methods

Without prior coding experience, using an online software development tool, we were able to create a multi-platform 'app' that will serve as an otolaryngology surgery 'companion'. This app aims to guide students, trainees and nurses step-by-step through common otolaryngology procedures.

A questionnaire was distributed to medical students to evaluate the app as a learning tool.

#### Results and conclusion

The Codiqa<sup>™</sup> software building platform has enabled students and healthcare professionals to place themselves, rather than developers, at the centre of the app building process. We highlight some of the challenges likely to have a wider impact on the utilisation of learning technology.

## Does tonsillectomy improve a patient's quality of life? An initial assessment of quality-of-life changes using the Tonsillectomy Inventory Score 14 in one centre.

R Roplekar, M Van, M Hussain From Ninewells Hospital, Dundee

#### Introduction

Despite a 'downward trend' in tonsillectomy rate, 699 898 tonsillectomies were performed between 1999 and 2010.

This single-centre study assessed a method of quantifying the quality-of-life (QoL) benefit of tonsillectomy.

#### Aim

To quantify the QoL benefit of tonsillectomy.

#### Methods

Prospective data on the QoL impact of tonsillitis in adults were collected using the Tonsillectomy Inventory Score 14 questionnaire. Post-operative questionnaires were distributed at least six months post-procedure.

#### Results

Thirty-one responses were received from the 60 eligible patients contacted. The average pre-operative score was 45.5 (standard deviation (SD) = 10.2) and the average post-operative score was 9.85 (SD = 11.2). The average difference in total Tonsillectomy Inventory Score 14 score indicated an improvement of 35.6 points (SD = 12.02, p < 0.0001, 95 per cent confidence interval = 31.2-40.1).

#### Conclusion

This study indicates that the QoL impact of simple recurrent tonsillitis can be quantified using the Tonsillectomy Inventory Score 14 score. There was a substantial improvement in QoL post-tonsillectomy, with a statistically significant difference between pre- and post-operative scores.

## Weight gain after adenotonsillectomy in a paediatric population with obstructive sleep apnoea: a systematic review

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#### Introduction

Children with obstructive sleep apnoea (OSA) commonly undergo adenotonsillectomy. Previous literature has suggested that this intervention may increase the risk of obesity post-operatively.

#### Aim

To investigate whether adenotonsillectomy for OSA is associated with weight gain after surgery in the paediatric population.

#### Methods

Two independent researchers systematically reviewed the literature from 1994 to 2014 for studies of patients who underwent adenotonsillectomy with weight-based measurements before and after surgery. The databases used were Ovid Medline and PubMed.

#### Results

Eight papers satisfied all inclusion criteria. Four of these papers showed a significant weight increase post-operatively. The only high-quality randomised, controlled trial showed a significant increase of weight gain at seven months follow up, even in patients who were already overweight before their surgery.

#### Conclusion

The current evidence shows that adenotonsillectomy is associated with post-operative weight gain in patients with OSA in the short term. 4 ENT SCOTLAND ABSTRACTS

## Is there any relation between Ménière's disease and medical or mental illnesses?

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#### Aim

This study aimed to investigate the relationship between Ménière's disease and medical co-morbidities or mental illnesses

#### Methods

An observational study was conducted of 60 patients who suffered with dizziness between 2012 and 2015. Thirty patients had Ménière's disease and 30 patients had vestibular causes of dizziness other than Ménière's disease (control group). The data, collected from electronic patient records, included demographic factors, medical co-morbidities and mental illnesses.

#### Results

In the Ménière's group, 24 patients (80 per cent) had various medical co-morbidities, compared to 63 per cent in the non-Ménière's group. Twenty-seven per cent of the Ménière's patients had a mental illness, compared to 23 per cent of the non-Ménière's patients.

#### Conclusion

In the study group, no correlation was found between any specific medical co-morbidity and Ménière's disease or other vestibular causes of dizziness. However, psychological background might have played a role in some of the patients in both groups, and should be taken into account during treatment.

## Ménière's syndrome or disease: time trends in the management and quality of evidence over two decades

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#### Aim

To evaluate the trends and evidence in the published literature on the treatment of Ménière's syndrome or disease over the last two decades.

#### Methods

A literature search was performed on 10 databases using a combination of Medical Subject Headings. Studies were evaluated to report on: trends in the management of this condition, the differing levels of evidence, and compliance with the American Academy of Otolaryngology – Head and Neck Surgery and the Consolidated Standards of Reporting Trials guidelines.

#### Results

The number of published randomised, controlled trials tripled from decade one to decade two. There was a significant decline in the use of surgical intervention (p = 0.013) and increase in the use of intratympanic steroids. There was a significant shift in the level of evidence in published studies; studies with level 1 evidence tripled from decade one to two (4.8 to 17.8 per cent; p = 0.03).

#### Conclusion

There was a significant change in the management of Ménière's syndrome or disease, and an improvement in the evidence base for the relevant published literature.