

EEOM
2015

ABSTRACTS

of the

East of England Otolaryngology Meeting

Peterborough City Hospital

June 5th 2015

Oral Presentations - Abstract Session I

Systematic review and meta-analysis of survival outcomes combining HPV and p16 status in oropharyngeal cancers

Mustafa Junaid, Nicola Graham, Jayne Wilson, Hisham Mehanna
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Evaluating the role of 18FDG-PET/CT and subsequent panendoscopy in head and neck squamous cell carcinoma of unknown primary

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Retrospective review of patients who underwent gastrostomies after radical radiotherapy in a tertiary referral unit.

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Day case open minimally invasive parathyroidectomy (oMIP) for solitary adenoma: Outcomes of surgery

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Systematic review and meta-analysis of survival outcomes combining HPV and p16 status in oropharyngeal cancers

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Introduction

Incidence of oropharyngeal cancers (OPC) has more than doubled in England between 1990 and 2006. Evidence from various studies appears to show improved survival outcomes in HPV positive OPC. There is uncertainty regarding HPV testing, particularly the role of p16. While the majority of HPV cases correlate with p16 positivity, there remain two discordant groups (HPV+/p16- and HPV-/p16+). The prognostic significance of these subgroups is unclear.

Materials & Methods

Two independent reviewers performed a systematic search of various electronic databases including Medline, EMBASE and the Cochrane Library. Initial search terms included all head and neck studies related to HPV and/or p16 as prognostic markers, and identified 279 studies. All studies relating to OPC cases alone were then selected from this cohort, and 7 studies were included in this review.

Results

In total 1318 OPC cases were identified from the 7 studies. There was an average 57% prevalence of HPV. Pooling of all studies showed a strong correlation between HPV status and p16 positivity, as either HPV+/p16+ (46%) or HPV-/p16- (36%). The discordant groups were HPV+/p16- (15%) and HPV-/p16+ (5%). The 4 subgroups had pooled 5-year overall survival of 81%, 32%, 42% and 58% respectively.

Conclusion

This is the first systematic review analysing the combination of HPV and p16 status in relation to survival outcomes. Correlation between subgroups appears to show extreme survival outcomes, with HPV+/p16+ showing an excellent 5-year survival rate compared to HPV-/p16-. However, discordant groups appear to show survival outcomes between these two extremes, with HPV-/p16+ appearing more favourable.

Evaluating the role of 18FDG-PET/CT and subsequent panendoscopy in head and neck squamous cell carcinoma of unknown primary

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Introduction

Head and neck squamous cell carcinomas of unknown primary (HNSCCUP) accounts for up to 10% of presenting HNSCCs. Identification of the primary site allows for directed therapy. Where initial investigations have failed to locate the primary site, hybrid 18FDG-PET/CT has emerged as a useful tool with improved sensitivity over PET alone. Following PET/CT scan, the role of subsequent panendoscopy +/- biopsy is not as clearly defined. We aim to evaluate and quantify the role of PET/CT and subsequent panendoscopy in HNSCCUP.

Materials & Methods

A retrospective cohort study of patients with HNSCCUP presenting between January 2005 and December 2010 at a regional oncology referral centre was undertaken. All patients who presented with a metastatic neck node and unknown primary who had undergone PET/CT prior to panendoscopy were included. The accuracy of PET/CT was calculated and compared with panendoscopy and histopathological findings.

Results

52 patients were included. There were 27 PET/CT scans suggesting a primary site. Calculated diagnostic parameters were 83% sensitivity, 87% specificity PPV 89% and NPV 80%. Three false positive PET/CT scans were noted after panendoscopy and normal histology. Importantly, three confirmed tongue base tumours were found on panendoscopy, which were undetected on PET/CT.

Conclusion

PET/CT is a highly valuable resource for locating tumours in HNSCCUP. It helps direct biopsy and aids in the detection of local and distant metastases along with synchronous primary tumours. Importantly, due to both false positive and false negative PET/CT rates, panendoscopy and biopsy remains an essential adjunct investigation irrespective of PET/CT results.

Retrospective review of patients who underwent gastrostomies after radical radiotherapy in a tertiary referral unit.

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Introduction

Patients with advanced stage head and neck cancer experience nutritional depletion requiring enteral supplementation. This can be achieved by nasogastric tube or gastrostomy, the latter being more long-term. The aim of this project was to review patients who had gastrostomies following radical radiotherapy at differing levels comparing the length of time feeding was required.

Materials & Methods

Retrospective review of all patients who had gastrostomies after radical radiotherapy over 2 years. A comparison was made on the length of gastrostomy feeding based on the level at which radiotherapy was applied. Patients were followed up for 1 year.

Results

30 patients having radiotherapy at the level of the oropharynx underwent gastrostomy feeding, compared to 10 patients having radiotherapy at the level of the hypopharynx. Analysis revealed there no significant differences in length of gastrostomy feeding between the groups.

Conclusion

There is no significant difference in length of time a gastrostomy is required, based on the level at which radiotherapy is required. Despite claims that radiotherapy is a more anatomically preservative treatment option, the physiological disturbance from radiotherapy at any level results in equal nutrition supporting needs.

Day case open minimally invasive parathyroidectomy (oMIP) for solitary adenoma: Outcomes of surgery

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Introduction

Primary hyperparathyroidism is the commonest cause of hypercalcaemia in the out-patient setting. Eighty percent of which is caused by solitary parathyroid adenoma. Surgical approaches to parathyroidectomy include bilateral neck exploration (BNE), unilateral neck exploration (UNE) and minimally invasive parathyroidectomy (MIP). Of which, BNE is considered as the gold standard approach. However, with the advent of improved preoperative localisation imaging technique allowing better patient selection, MIP is establishing itself as the more acceptable, more economical and highly effective definitive treatment for solitary adenoma causing hyperparathyroidism.

Aim

We shall present our Trust's experience in performing oMIP and demonstrate its effectiveness and many advantages over the more traditional BNE. In particular, we will demonstrate the importance of high quality preoperative dual modality imaging (ultrasound scan and ^{99m}Tc sestamibi) in oMIP.

Method

A retrospective case note review was carried out for all oMIP performed from 2006 to 2014. All patients had preoperative localisation imaging using ultrasound scan and ^{99m}Tc sestamibi scan. Correlations of adenoma located preoperatively by USS and ^{99m}Tc sestamibi scan in comparison to intraoperative findings, as well as dual modality concordance, were evaluated. Successful surgical localisation and biochemical cure, complication rate and financial savings per case were investigated.

Results

One hundred and ninety patients were included with a mean age of 62. Pre-operative ultrasound scans and ^{99m}Tc sestamibi scans were concordant in 76% of cases. Successful surgical localisation and biochemical cure were achieved in 100% of cases in this concordant group of patients. Postoperative recovery was uneventful in 94% of patients who were discharged on the same day. oMIP resulted in savings of £1549.47 per case.

Conclusion

oMIP confers significant advantage over the gold standard BNE for solitary parathyroid adenoma and can be performed safely as a daycase. It leads to efficient use of hospital resources and is beneficial for patient experience. High quality preoperative imaging for accurate localisation is the key for successful oMIP.

Oral Presentations - Abstract Session II

Permeatal endoscopic removal of a petrous apex cholesteatoma.

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Bone anchored hearing aid surgery in England – variation in service provision for adults across Strategic Health Authority regions

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An unusual case of dysphonia and obstructive sleep apnoea in a child

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In-clinic cytology screening improves efficiency of the one-stop neck lump assessment clinic: 13 years' experience

Deutsch C, Patel AP, Masood A, Bhat N

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Permeatal endoscopic removal of a petrous apex cholesteatoma.

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Introduction

Petrous bone cholesteatomas are slow growing epidermoid cysts arising from squamous cells in the petrous part of the temporal bone. Petrous bone cholesteatomas account for between 4% and 9% of all petrous bone lesions. They can be congenital or acquired. Petrous apex cholesteatomas (PACs) can present with

hearing loss and a facial palsy with the geniculate ganglion being the most frequently affected part of the facial nerve. Other common presenting features include vertigo, tinnitus, otorrhoea, and otalgia.

Case Report

A 63 year old Caucasian male presented with a 10 year history of right-sided facial palsy and profound deafness. Clinically the patient had a House-Brackmann grade 6/6 palsy. There was extensive facial scarring from two unsuccessful rhytidectomies and a static procedure for cosmesis. Otoscopy demonstrated an attic cholesteatoma with an intact tympanic membrane. Computed tomography demonstrated a skull base lesion eroding the right petrous temporal bone. Magnetic resonance imaging showed a lesion that was isointense to brain making a previous diagnosis of a vestibular schwannoma unlikely. A cholesteatoma was suspected on clinical examination. The patient was successfully managed using a wholly endoscopic permeatal technique.

Conclusion

A wholly endoscopic permeatal approach to the petrous apex is rarely reported but can be used safely in the management of petrous apex cholesteatomas. In addition to offering excellent views and better access to the operative field, this minimally invasive technique causes less trauma to normal tissues and reduces post-operative morbidity.

Bone anchored hearing aid surgery in England – variation in service provision for adults across Strategic Health Authority regions

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Introduction

The bone-anchored hearing aid, or BAHA, was designed to overcome the disadvantages of the transcutaneous bone conduction hearing aid in patients where surgery to improve hearing or a conventional hearing aids are not suitable. An informal discussion amongst senior UK otologists led to the hypothesis that some hospitals may be performing significantly more bone-anchored hearing aids (BAHAs) than others. With funding from ENT-UK, the authors set out to investigate whether evidence existed to support a regional variation in the provision of BAHAs.

Materials & Methods

The Hospital Episode Statistics (HES) database was interrogated using a bespoke service and data were obtained for years 2008 to 2010 for adult patients only. We used the 2009 geographical distribution of Strategic Health Authorities (SHAs) and standardised the number of procedures per 100,000 inhabitants.

Results

A large difference in the numbers of BAHAs implanted was identified, with some SHAs (n=28) implanting over 17 times as many BAHAs as others (Range 0.41 to 7.03 per 1 00,000 population. Mean 2.6586 SD 1.7761 95% CI 1.9699 to 3.3473).

Conclusion

A significant regional variation in the provision of BAHAs exists throughout England. The reason for is not immediately apparent, but is likely to be a combination of patient, surgeon and economic factors. The implementation of a national BAHA audit, or comprehensive national implant database would reveal more about current indications for BAHA implantation. Recent scandals involving medical implants strengthen the case for a national audit.

An unusual case of dysphonia and obstructive sleep apnoea in a child

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Introduction

Adenotonsillar hypertrophy accounts for most cases of paediatric obstructive sleep apnoea but the differential diagnosis is broad.

Materials & Methods

We present an unusual cause of paediatric obstructive sleep apnoea and dysphonia.

Case Report

An eight-year-old girl presents with a six-month history of snoring, noisy breathing, and dysphonia. Further investigations confirmed obstructive sleep apnoea. Examination of her throat revealed Grade III tonsils. She was listed for an adenotonsillectomy and diagnostic microlaryngoscopy. Intraoperatively a large right-sided supraglottic mass that compromised the airway was seen. This was debulked and the patient was taken to PICU intubated.

Her post-operative CT of the neck showed a right sided supraglottic submucosal mass involving the aryepiglottic folds and false vocal cord. This narrowed the right side of the supraglottic airway. Biopsies of the right larynx demonstrated tissue grossly expanded by acellular hyaline eosinophilic fibres. These stained positively with Congo red and produced apple green birefringence under polarised light. Rheumatology input confirmed localised (non-systemic) supraglottic amyloidosis. Recurrence of snoring and voice symptoms three months later resulted in further debulking and adenotonsillectomy.

Conclusion

Laryngeal amyloidosis is rare, progressive condition accounting for less than 1% of benign laryngeal tumours. It requires multidisciplinary management and long term follow-up.

In-clinic cytology screening improves efficiency of the one-stop neck lump assessment clinic: 13 years' experience

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Introduction

UK guidelines recommend a 'one stop' clinic for neck lump triple assessment, including fine needle aspiration (FNA). In our unit, we have established a screening process in which an in-clinic cytology practitioner assesses specimens immediately, to establish their technical adequacy before the patient leaves. Here, we report the impact of this arrangement on our rates of inadequate FNA specimens.

Materials & Methods

All Head and Neck FNA performed in our hospital between 2011 and 2014 were identified. FNA was performed under ultrasound guidance according to standard protocol. The final pathology outcomes were recorded, with specimen sufficiency for diagnosis being our primary outcome. Data from our previous audit of FNA results between 2005 and 2010 were retrieved and compared.

Results

In 2011-2014, 1123 FNA were performed. A median of 18% were inadequate specimens for diagnosis. This compares to 44% for 2005-2010. There is a downward trend year-on-year, with the exception of a rise from 14% to 18% between 2012 and 2013. Negative FNAs were reported more frequently in 2014 (42%) than 2005-2010 (median 24%). Thyroid malignancy was identified in 8%.

Conclusion

Here we present data following the introduction of an in-clinic cytology screening process in 2008, demonstrating a sustained fall in rates of inadequate specimens. Multiple factors are likely to be responsible for this, including cytology screening and the services of a permanent, dedicated head and neck ultrasonographer. Other units utilising a similar setup report equally positive findings, suggesting cytology practitioners are a valuable addition to the one-stop neck lump clinic.

Oral Presentations - Abstract Session III

Management and outcomes in children with sinogenic intracranial abscesses

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Body Dysmorphic Disorder in Septorhinoplasty Patients

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A novel finding of *Staphylococcus aureus* within mast cells in nasal polyps

Stephen M. Hayes, Robert Howlin, David A. Johnston, Jeremy S. Webb, Stuart C. Clarke, Paul Stoodley, Philip G. Harries, Susan J. Wilson, Sylvia L. F. Pender, Saul N. Faust, Luanne Hall-Stoodley, Rami J. Salib
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A rare cause of epistaxis

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Management and outcomes in children with sinogenic intracranial abscesses

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Introduction

The intracranial complications of sinusitis are potentially life threatening and include venous sinus thrombosis, meningitis and intracranial abscesses. We report our experience of sinogenic intracranial abscesses in the paediatric population and to guide medical and surgical management.

Methods

All children with sinogenic intracranial abscesses presenting to a large university teaching hospital over a five-year period were included in the study. Data on clinical presentation, radiological findings, microbiology, medical and surgical management and follow-up were recorded and analysed.

Results

We identified 27 children aged 12.9 ± 3.4 years of which 56% were male. Fourteen (52%) children had extradural abscesses, nine (33%) subdural abscesses and four (15%) parenchymal abscesses. Early sinus drainage procedures were performed on 24 (89%) patients, and the same number required neurosurgical drainage. *Streptococcus milleri* was isolated in 18 (67%) cases. An initial conservative neurosurgical approach failed in 50% of cases where trialled, and was associated with longer length of stay ($p=0.025$). In comparison to extradural abscesses, subdural abscesses were more likely to present with neurological deficits ($p<0.001$) and reduced consciousness ($p=0.018$), and required multiple neurosurgical procedures ($p<0.001$), longer stays ($p=0.017$), and had greater morbidity at six months ($p=0.017$). A third of children had significant morbidity at six months, which included cognitive and behavioural problems (25%), residual hemiparesis (19%) and expressive dysphasia (7%). There were no mortalities.

Conclusion

Sinusitis complicated by intracranial abscess remains a contemporary problem. We demonstrate good outcomes with an early combined rhinological and neurosurgical approach. *Streptococcus milleri* is identified as the causative organism in the majority of cases, and empirical antimicrobial treatments should reflect this.

Body Dysmorphic Disorder in Septorhinoplasty Patients

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Introduction

Septorhinoplasty (SRP) is performed to optimise or restore adequate nasal function. It is important to identify those patients referred for whom cosmetic outcome may take precedence over function, and recognize a pre-existing psychiatric condition such as body dysmorphic disorder (BDD).

Materials & Methods

Retrospective review of patients seen in ENT outpatients in June 2014 for SRP. Clinic notes and letters reviewed to identify those with a diagnosis of BDD or referred for further psychological assessment.

2nd cycle performed in January 2015; patients referred for SRP in ENT outpatients were recruited into a prospective cohort. A validated screening tool, the Body Dysmorphic Disorder Questionnaire (BDDQ) administered in outpatients. Patients with a positive screen for BDD were referred for psychological assessment. Cohort followed to determine if SRP surgery was suitable.

Results

In 2014, 22% of SRP patients were referred for psychological assessment, 50% of those referred had surgery postponed due to BDD and suicidal ideation. In 2015, 30% of SRP patients were screened positive for BDD (67% male, 33% female). In the at-risk cohort, 33% of patients were offered SRP for their septal deviation; however 67% were found to be unsuitable for SRP and referred for psychological counselling.

Conclusion

A multi-disciplinary approach should be sought for patients who are at-risk of BDD. Early identification, meticulous surgical planning, post-operative follow-up and support is needed to ensure that patients have a good outcome

A novel finding of *Staphylococcus aureus* within mast cells in nasal polyps

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Introduction

Chronic rhinosinusitis (CRS) is a common condition with 20% of patients developing nasal polyps (NP). Bacterial biofilms have been implicated as mediators of the inflammatory reaction in CRS, however, little data pertains to bacterial profiles in NP. Therefore, we conducted a preliminary study characterising bacterial profiles in NP.

Materials & Methods

A prospective study was conducted in 9 patients with CRS with nasal polyps (CRSwNP) undergoing endoscopic sinus surgery, and 5 control patients undergoing trans-sphenoidal pituitary surgery. Non-polypoidal sinonasal mucosa and NPs were collected from each CRSwNP patient, and sinonasal mucosa from controls. The bacterial profiles were assessed using fluorescence *in situ* hybridisation, confocal laser scanning microscopy (CLSM) and immunohistochemistry.

Results

CLSM demonstrated bacterial biofilms on all samples of non-polypoidal sinonasal mucosa, but not on the epithelial surface of NP. However, sub-epithelial and intracellular bacteria were observed within host cells in all NP samples. No biofilms or intracellular bacteria were observed in control samples. Intracellular bacteria were identified as *S. aureus*. Immunohistochemical colocalisation identified mast cells (MC) as the *S. aureus*-harbouring host cells.

Conclusion

The observation of intracellular *S. aureus* is a novel finding and may have relevance to the pathogenesis of NP. Furthermore, *S. aureus* internalisation within MC potentially allows the establishment of a niche of viable intracellular bacterial reservoirs protected from extracellular antimicrobial compounds, and with the ability to constantly seed bacteria thus sustaining the inflammatory reaction and leading to chronicity.

A rare cause of epistaxis

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Introduction

Epistaxis is a common, and in a particular patient cohort, potentially life threatening presentation. With an aging population and increasing use of anticoagulation one must be aware of the diverse and occasionally reversible aetiologies. We describe the case of an 83-year-old gentleman with recurrent epistaxis secondary to undiagnosed acquired haemophilia.

Case Report

An 83-year-old gentleman with no known bleeding diathesis and not on anticoagulant or antiplatelet therapy presented to our unit with unilateral epistaxis requiring nasal packing and admission. He was noted to have a normal prothrombin time (PT), fibrinogen and platelet count, but a deranged activated partial thromboplastin time (APTT) of 3.20. Bleeding settled after removal of nasal packing and cautery. On further questioning, it was revealed that he had undergone an elective right inguinal hernia repair one month earlier, which was complicated by a large post-operative scrotal and groin haematoma requiring return to theatre for drainage and blood transfusion. His APTT at this time had been deranged at 1.49 but this was not investigated despite his post-operative haemorrhage. On advice from a haematology specialist, coagulopathy assays for lupus anticoagulant and intrinsic pathway factors were sent, and an early haematology out-patient follow up arranged.

Unfortunately he re-presented one day later with recurrent epistaxis. At this point his factor VIII was reported as <1 IU/dl (normal range 50-150) and he was diagnosed with acquired haemophilia. Nasal packing was left in place and the patient was admitted to try to correct his underlying coagulopathy. Oral prednisolone, tranexamic acid and PPI gastric cover were commenced.

Admission was complicated by recurrent epistaxis and a large retroperitoneal muscular bleed resulting in an acute haemoglobin drop of 32 g/L and acute kidney injury (creatinine rise of 99 micromol/L). Stabilised with intravenous fluid replacement, blood transfusion and Novo 7 infusion it was not until rituximab was funded and commenced that change was observed in factor VIII levels. Two months post discharge the patient's clotting studies and factor VIII are back to the within normal range and his oral steroids are being weaned.

Conclusion

We emphasise that vigilance with respect to clotting studies is crucial in the management of patients with recurrent epistaxis. Earlier recognition of this uncommon diagnosis during a previous elective surgical admission would have prevented the life-threatening bleeding complications that ensued. The case demonstrates the importance of thorough history taking and investigation with inter-specialty liaison, and provides an opportunity to broaden our understanding of unusual coagulopathies.

Poster Presentations

Survey of the use of laryngeal mask vs. endotracheal tube for paediatric tonsillectomy in South Essex hospitals

Cresswell M, Harding L
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Skin prick testing in chronic rhinosinusitis – a need for targeted investigation

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The diagnostic utility of high resolution Computed Tomography for otosclerosis

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Hypocalcaemia following total and completion thyroidectomy: A retrospective analysis in a district general hospital

Kulloo P, Abed T, Kanzara T, Philpott J, Watters G
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What do foundation doctors know about the surface anatomy of the ear and nose?

Dr Elizabeth Mathew
Colchester General Hospital

Potts Puffy Tumour - a diagnosis not to be forgotten

Bhavesh Patel, Richard Fox, Issa Beegun
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Portable screening for hearing loss in the elderly using a tablet application

Krishan Ramdoo, Christopher Lambert, Arvind Singh, Taran Tatla
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An unusual case of a 'collision tumour' of the thyroid

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Evaluating topical ear-drop administration in a cohort of ENT patients

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Paraganglioma: The challenges of perioperative management

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Do ENT surgeons develop postural adaption from years of otological procedures?

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The role of nurse practitioners within an ENT on-call service

Ananth Vijendren, Martin Huggins, Sarah Baker, Jane Corrick, Rebecca Pryke, Matthew Yung
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The personality type of an ENT surgeon

Ananth Vijendren, Matthew Yung, Jose Sanchez, Uttam Shiralkar
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How good are ENT surgeons with operation record keeping in a teaching hospital?

Antonia Tse, Sonia Kumar, Rob Almeyda
John Radcliffe Hospital, Oxford

Do ENT surgeons or clinical coders make more money in a teaching hospital?

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Inverted papilloma originating primarily from the NLD – a case report

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Survey of the use of laryngeal mask vs. endotracheal tube for paediatric tonsillectomy in South Essex hospitals

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Introduction

Tonsillectomy is one of the most frequently performed surgical procedures in children. The use of different airway adjuncts for tonsillectomy varies according to anaesthetist and surgeon preferences. Studies demonstrate no significant difference in laryngospasm rates, while postoperative stridor is less frequent after laryngeal mask use. Aim of this survey was to establish current practice in our network of hospitals.

Materials & Methods

An anonymous online questionnaire was created using www.surveymonkey.com. Dissemination via email to middle grade ENT doctors and consultants.

Results

The response rate was 56.25% (18 of 32). 87.78% of respondents reported using mostly endotracheal tube. 66.66% of them preferred endotracheal intubation, while 11.11% preferred laryngeal mask and 22.22% did not have a preference. Reasons for airway method selection included 'better surgical access' in 64.29%, 'it is a secure airway' in 57.14%, 'patients experience less gagging and coughing postoperatively' 21.43% and 'others' 14.29%. Regarding anaesthetists preference, 61.11% of respondents marked 'endotracheal tube'. Only 16.67% of respondents reported a change in practice during their career.

Conclusion

In our hospital network there is no consensus in use of endotracheal tube vs laryngeal mask for paediatric tonsillectomy. Endotracheal intubation is the most frequently used and preferred ventilation method by both ENT surgeons and anaesthetists.

Skin prick testing in chronic rhinosinusitis – a need for targeted investigation

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Introduction

Allergy in CRS is a contentious issue; it has been suggested that atopy predisposes to the development of CRS, however a causal relationship between allergy and CRS has not been proven. The aims of this study are to:

1. Determine the frequency of positive allergy testing in CRS (except AFRS) at James Paget University Hospital (JPUH)
2. Determine whether universal skin prick testing (SPT) for all types of CRS is warranted, or should be performed more selectively.

Materials & Methods

Retrospective analysis of notes was undertaken of 220 consecutive patients attending for SPT at JPUH, a tertiary referral clinic, over a two-year period. All patients had a confirmed diagnosis of CRS with or without polyposis as per EPOS guidelines.

Results

220 patients total, 66% (n=146) with CRSsNPs, 34% (n=74) CRSwNPs.

CRSsNPs: 54% male. Positive SPT 33% (n=48)

CRSwNPs: 46% male patients were male, and 46% (n=16) had positive SPT.

The difference in proportion of patients with positive SPT between those with and without polyps (46% vs 33%) was significant ($p=0.04$, Fisher's Exact test).

Conclusion

There is a relative increase in atopy (ie positive SPT) in patients with CRSwNP of 40% vs CRSsNP. Recent data from another study at our centre suggests poor correlation between total IgE and inhalant atopy. It is apparent that 2/3 of patients without polyps are negative on SPT, therefore there is a need for a better means of screening those patients that require SPT in this subgroup to reduce the need for costly, labour intensive SPT.

The diagnostic utility of high resolution Computed Tomography for otosclerosis.

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Introduction

Otosclerosis is focal bone disease of unknown aetiology which predominantly affects the endochondral bone of the otic capsule. Histopathologically normal endochondral bone of the otic capsule is replaced by disorganised foci of Haversian bone which ultimately becomes sclerotic and dense. Diagnosis is clinical but high resolution computed tomography (HRCT) is a useful adjunct. This study was conducted to determine the sensitivity and specificity of HRCT in the diagnosis of Otosclerosis.

Materials & Methods

Systematic literature review was conducted from 2000 to present in PubMed and Medline resources. We mainly focused on Level I-III studies (Oxford Centre for Evidenced based Medicine) that utilized HRCT to detect histology confirmed Otosclerosis. Sensitivity and specificity were then calculated.

Results

On the basis of available level I-III literature, 5 studies, HRCT has a relatively low sensitivity of 63% but a high specificity, 98%. HRCT is better at diagnosing the more prevalent fenestral form of otosclerosis but remains vulnerable to inframillimetre, retrofenestral and dense sclerotic lesions, despite the advent of more advanced CT scanners and a better understanding of the disease.

Conclusion

Whilst the diagnosis of otosclerosis remains largely clinical, HRCT remains the gold standard imaging of choice for the middle ear and serves as a useful adjunct to the clinician, helping to delineate extent of disease and exclude other causes. The need for more prospective long term high level studies should be underlined.

Hypocalcaemia following total and completion thyroidectomy: A retrospective analysis in a district general hospital

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Introduction

Hypocalcaemia is a recognised complication of thyroid surgery. Our primary objective was to audit hypocalcaemia rates following total and completion thyroidectomy in Southend Hospital against British Association of Endocrine and Thyroid Surgeons (BAETS) audit data. Our secondary objective was to identify factors associated with post-operative hypocalcaemia.

Materials & Methods

A retrospective study of total and completion thyroidectomies performed from 2006 to 2014 in Southend Hospital was undertaken. Data was obtained from theatre logs, medical notes and Sunquest ICE™ software. This was analysed against BAETS national transient hypocalcaemia rate of 27.3% and permanent hypocalcaemia rate of 12.1%.

Results

70 patients were in the study. Overall transient and permanent hypocalcaemia rates were 23% and 4.3% respectively. There was no significant difference between benign and malignant disease for transient (22-23%) and permanent hypocalcaemia rates (4.3%). Transient hypocalcaemia rate was higher in patients with at least one parathyroid gland identified intra-operatively compared to those where none were identified (31% vs. 24%).

Conclusion

Our transient and permanent hypocalcaemia rates were better than national average. There was no association between histology type and post-operative hypocalcaemia. There was a higher transient hypocalcaemia rate in patients with at least one parathyroid gland identified intra-operatively compared to those where none was identified. However, higher-powered studies are needed to investigate this further.

What do Foundation Doctors know about the surface anatomy of the ear and nose?

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Introduction

Knowledge of surface anatomy is essential to clinical practice. It allows a clinician to describe examinations correctly, facilitates communication for referrals to specialist teams and allows accurate documentation. Foundation doctors are expected to deal with ENT conditions in certain rotations e.g. general practice or accident and emergency. The research aimed to identify if foundation doctors at a district general hospital were able to correctly identify surface anatomy of the external ear, tympanic membrane and nose.

Materials & Methods

Questionnaires were given to forty foundation doctors. The doctors were given fifteen minutes to fill in labels corresponding to simple diagrams of the external ear, tympanic membrane and nose.

Results

None of the foundation doctors were able to achieve full scores for correct labeling. The average score was less than fifty percent for all of the three diagrams. The tympanic membrane was most incorrectly labeled. Those who had rotated through otolaryngology did not achieve higher scores than those who had not.

Conclusion

Teaching needs to be directed towards these knowledge gaps. Having this knowledge would improve the quality of referrals and allow junior doctors to accurately and confidently document their examination findings, thus facilitating safer clinical practice. It also questions the way anatomy and ENT is taught in the undergraduate curriculum.

Potts Puffy Tumour - a diagnosis not to be forgotten

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Introduction

Pott's Puffy Tumour (PPT) is a rare clinical condition defined as a subperiosteal abscess of the frontal bone with associated osteomyelitis. PPT is one of the rarer but more serious complications of Chronic frontal sinusitis and prompt recognition and treatment is essential to prevent disastrous intracranial progression. Although PPT is seen mostly in adolescents, we describe the eldest documented case of PTT. The case illustrates how the rare and subtle presentation of PTT challenges its prompt diagnosis.

Case Report

An 80-year-old woman, with a history of chronic rhinosinusitis, presented to the Accident and Emergency department with a one week history of right sided supra and infraorbital swelling, tenderness and erythema. Her symptoms began with swelling and erythema above her right eye. This spread to involve the right infraorbital region and across the right side of her right cheek. Examination revealed a boggy tender swelling in the supraorbital region with surrounding erythema, confirmed to be a Potts Puffy tumour on Sinus CT. She was managed with Intravenous antibiotics, analgesia, nasal douches and decongestants and the lesion was treated surgically with incision and drainage. The patient was well postoperatively and at initial follow-up. Frontomaxillary balloon sinuplasty was performed two months later and the patient reported good symptomatic relief at 6-month review.

Conclusion

- Patients with PPT may have normal inflammatory markers and appear systemically well
- Investigation is via a contrast enhanced sinus CT which shows opacification of the frontal sinus, stranding and swelling of the overlying scalp with or without a defect in the anterior wall of the sinus
- Treatment is via broad spectrum IV antibiotics and surgical drainage
- If untreated PPT can result in serious complications including subdural empyema, subarachnoid inflammation or involvement of brain parenchyma.

Portable screening for hearing loss in the elderly using a tablet application

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Introduction

The use of smartphones and tablets in healthcare are rising continually. Their portability and accessibility provide novel solutions to a number of medical problems. We performed a prospective study assessing the feasibility for the use of a tablet application, to perform opportunistic screening in the elderly for hearing loss, in an outpatient setting.

Materials & Methods

We opportunistically recruited 50 participants over the age of 60, who were visiting an outpatient department in North West London for non ear-related complaints. Patients with previously diagnosed hearing loss or significant otological history were excluded. A hearing test was performed with the EarTrumpet iPad application in a quiet room and then validated against pure tone audiometry. Otoscopy and whisper tests were also carried out.

Results

The tablet application correctly diagnosed the presence of moderate to severe hearing loss (>40dB threshold) with an overall sensitivity of 95% and a specificity of 77% across all standard frequencies. On average, the application overestimated the hearing loss by 9.5 dB compared to PTA. Fifteen of the participants (30%) appeared suitable for appropriate hearing aid trial

Conclusion

A third of older adults with hearing loss fail to recognise and actively seek hearing tests¹ and assistance. This use of a novel tablet application for opportunistic targeted screening, within the hospital out-patient environment where waiting times are not uncommon or insignificant, demonstrates excellent sensitivity, inviting utility without the need for trained personnel.

An unusual case of a 'collision tumour' of the thyroid

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Introduction

This case highlights the unusual finding of two forms of well-differentiated thyroid neoplasia after an emergency total thyroidectomy.

Case Report

A 34-year-old Indonesian lady presented to the emergency department with an enlarging multi-nodular goitre causing tracheal compression. It transpired the symptoms of episodic stridor had been present for 2 years and was being treated as presumed Asthma in the community. Four hours following admission her airway became completely obstructed with subsequent respiratory arrest on the ward requiring an emergency bedside decompression of the thyroid compartment with attempted tracheostomy. She was immediately taken to theatre where a total thyroidectomy was performed. *Radiological findings:* A CT scan of the neck and Thorax was performed, which revealed an extensive multi-nodular goitre (8 x 5 x 4 cm) with significant narrowing of the extra-thoracic trachea but no evidence of retrosternal extension. *Histological Findings:* Results of the histological examination revealed two forms of well-differentiated thyroid neoplasia. One lobe was reported as an invasive papillary carcinoma whereas the contralateral lobe showed a separate follicular neoplasm.

Conclusion

Following surgery, histology results were discussed at the head and neck multi-disciplinary team meeting and the decision for radio-iodine treatment made. Collision tumours are rare and to our knowledge there is only one other reported case in the English literature of a Thyroid gland involving both a follicular and papillary carcinoma.

Evaluating topical ear-drop administration in a cohort of ENT patients.

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Introduction

Patients are often prescribed ear-drops for a range of ear conditions but are not necessarily taught on how to effectively instill them thus potentially reducing their efficacy. We evaluate topical ear-drop administration and level of patient knowledge.

Methods

Prospective questionnaire study. Questions were related to patient positioning, mechanism of insertion, patient education on usage, hearing-aid usage, post-administration care and the underlying pathology being treated.

Results

62 patients completed the questionnaire. Of these, 30 (48%) were being treated for an ear infection. Most (n=47, 76%) lie on one side to administer drops; 26 (42%) retract the ear; half massage their ear (n=31, 50%) and avoid water in the ear (n=26, 42%). 23 (37%) had been educated on usage. Of these, administration technique was better.

Conclusion

The majority of patients who are prescribed eardrops are not given written or verbal instructions on how to use them resulting in poor technical administration and insufficient duration to allow permeation. Technical administration was better in those who taught how to use eardrops. This study suggests that poor patient education may negatively influence management of conditions requiring eardrops. Patient information leaflets have been designed to impart proper administration technique.

Paraganglioma: The challenges of perioperative management

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Introduction

Paragangliomas are tumours that contains chief cells derived from neural crest cells. All paraganglia have the capability of producing biologically active amines. 4% of head and neck paragangliomas secrete catecholamines, the majority secreting norepinephrine.

Methods

We discuss the multidisciplinary peri- and intra-operative management of catecholamine secreting paragangliomas from recent experience of two cases as well as literature review.

Results

Pre-operative management started weeks prior to the operation, when an endocrinologist initiated phenoxybenzamine and propranolol. Intra-operatively, a hypertensive crisis occurred each time the mass was handled. At this point, the surgeons would pause, while the anaesthetist titrated sodium nitroprusside. It would take 1-2 minutes for the blood pressure to fall to acceptable parameters. Post-operatively the patient was normotensive without therapy.

Conclusions

Catecholamine-secreting paragangliomas in the head and neck require multidisciplinary perioperative management to reduce the risk of serious morbidity or mortality and offer potential curative treatment. Close and regular communication between surgeons and anaesthetists during times of tumour manipulation allow for acute hypertensive crises to be better predicted and managed.

Do ENT surgeons develop postural adaptation from years of otological procedures?

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Introduction

A surgeon's daily workload renders him/her susceptible to a variety of occupational hazards. Amongst the commonest hazard is musculoskeletal fatigue and pain. ENT surgeons who perform otological procedures frequently need to engage in prolonged microscopic work; combining static postures and prolonged sitting which can result in chronic musculoskeletal problem. We conducted a study to investigate the intraoperative discomfort experienced amongst junior and senior ENT clinicians in an ENT department.

Materials & Methods

10 ENT clinicians of varying grades were recruited. All participants were asked to focus on reading material through an operating microscope without any postural changes to simulate vital aspects of otological operations. The time taken to experience fatigue and pain in their neck and back and the simultaneous measurement of neck and back muscular activities using a surface electromyogram (sEMG) were recorded

Results

Surgeons experience and time to fatigue and pain was correlated for onset of neck and back discomfort and pain ($p < 0.05$). Consultants took a longer time to experience fatigue in their neck ($p = 0.02$) and back ($p = 0.0001$) as well as pain in both places ($p < 0.0001$) in comparison to their junior colleagues. These findings were correlated on the sEMG readings.

Conclusion

ENT surgeon seniority correlated with the time taken to experience fatigue and pain in the neck and back, whereby greater surgical experience delays the time taken to experience both sensations. This suggests that there is an element of muscle adaptation from years of performing microscopic procedures and has implications for surgeons in training

The role of nurse practitioners within an ENT on-call service

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Introduction

The introduction of the European Working Time Directive (EWTD) amongst junior doctors in 2004 have resulted in them cross-covering multiple specialties out-of-hours despite their lack of knowledge in particular fields. In Ipswich, nurse practitioners (NP) were recruited in 2004 to cover the ENT out of hours' commitments. We conducted a service evaluation to review their daily activities 10 years after inception.

Materials & Methods

The daily activities of the ENT 1st on-call (4 ENT NPs and 2 SHOs) were recorded between 23.1.2014 - 23.2.2014. Data was collected on the time they were contacted, source and purpose of bleep, skills required, outcome of call, ENT 2nd on call involvement and comparisons to previous audits done in 2008 and 2009.

Results

There were 175 1st on-call bleeps recorded (135 taken by NPs and 40 by SHOs). Common presentations included epistaxis (20%), otological complaints (13.1%) and sore throats (12.6%). The skills required by the 1st on-call involved prescribing, cannulation, epistaxis management, nasoendoscopy and microsuction. NPs were less likely to contact the 2nd on-call in comparison to SHOs (7.4% vs 58.1% $p=0, x^2=46.1368$). This finding was similar when compared to audits done in 2009 and 2008 ($p<0.05$).

Conclusion

From our experience, we feel that the NPs are a safe, effective and cost efficient way of providing an ENT emergency service. There is certainly a more sustained development of their clinical skills as well as greater continuity of patient care in comparison to junior doctors who rotate frequently. This service may be applicable to other specialties/trusts.

The personality type of an ENT surgeon

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Introduction

People with various personalities embark on a career in medicine. Surgery has been postulated to attract highly-strung and motivated characters that may be prone to various co-morbidities. We conducted a study to identify the personality types of ENT surgeons in comparison to a control, foundation doctors (FD

Materials & Methods

A validated personality questionnaire was distributed to all ENT specialty trainees (StR) within the East of England deanery and FDs within a district general hospital. The questionnaires were scored and individuals were assigned to either a type A or type B personality.

Results

Our response rates were 18 out of 19 ENT StRs and 36 out of 40 FDs (21 FY1 and 15 FY2). ENT StRs had significantly higher type A personalities in comparison to foundation doctors (ratio 13/18 ENT StRs:15/36 FDs, $p=0.034$, chi-square statistic=4.4876). There were no associations between personality types and grade, gender or subspecialty of interests.

Conclusion

We found that ENT surgeons are more likely to have type A personalities in comparison to foundation doctors, which could place them at higher risk of cardiac and psychosomatic morbidity. Further research is required before a concrete link can be established.

How good are ENT surgeons with operation record keeping in a teaching hospital?

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Introduction

Accurate medical record keeping is crucial and operation notes are an important part of patient's medical records. It details what took place at surgery and facilitates postoperative management of patients. It serves as an important medico legal document.

The aim was to compare documentation of operation notes in an ENT department against the Royal College of Surgeons of England guidelines before and after an aide-memoire was introduced.

Materials & Methods

52 consecutive operation notes for patients who had undergone elective or emergency surgery in the Department of Otolaryngology were audited. Awareness of the guidelines were raised and aide-memoires were made and this study will be re-audited.

Results

There was good documentation of date (100%), title of operation (100%), name of surgeon (94%) and post-operative care instructions (98%). There was poor documentation of operative diagnosis (30.8%), operative findings (38.5%), details of closure technique (40.7) and details of prosthesis used (40.7%). None of the operation notes had the time or elective/ emergency procedure documented.

Conclusion

Operation documentation is important as it has medical, legal as well as financial implications. By raising awareness of the college guidelines and using aide-memoires, it is hoped that there will be improvement in the content recorded for operation notes.

Do ENT surgeons or clinical coders make more money in a teaching hospital?

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Introduction

Each time a patient is admitted to hospital and receives medical treatment, documentation of investigations and management is essential. Clinical coders are employed to translate clinician notes into financial billing codes such that trusts are paid appropriately for treatments given. Operative notes are an essential source of information for the billing of treatment in surgery, and so accuracy of coding is paramount. We compared the coding of ENT procedures by ENT surgeons and clinical coders, and determined if there were any financial differences.

Materials & Methods

52 consecutive operation notes for elective or emergency ENT procedures were reviewed and coded by 2 ENT Registrars. These were then compared to official procedure codes as recorded by clinical coders. The difference was compared financially.

Results

Clinical coders were found to allocate on average more specific codes per operation than clinicians. This resulted in a more accurate representation of patient treatment costs.

Conclusion

The accuracy of clinical coders in translating operative notes into appropriate procedure codes is testament to their training. ENT surgeons lack this specialised training, and this is demonstrated by their incomplete procedures coding. Clinical coders play an essential role in the financial management of patient care in hospitals, and their importance should not be overlooked.

Inverted papilloma originating primarily from the NLD – a case report

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Introduction

Inverted papilloma (IP) is an uncommon, benign yet aggressive neoplasm characterised by high recurrence rates and propensity to turn malignant. IP originates from the mucosal lining of the sinonasal tract with majority of cases originating in the ethmoid region, lateral wall of the nasal fossa and maxillary sinus. The authors report a case of an IP originating primarily from the nasolacrimal duct (NLD)

Case Report

A 69-year-old gentleman presents with a varying lump in his right medial canthal region, chronic epiphora and discharge bilaterally for two years with no proptosis. The patient thirty years previously had a conjunctival papilloma excised from the right eye with no extension into the medial canthus. Radiological investigation revealed a well-defined, heterogeneous mass within the proximal NLD causing pressure erosion of the bony canal, protruding into the middle meatus and laterally into the right orbit. The tumour was excised en-bloc utilizing a combined external and endoscopic approach due to its location. Histology revealed hyperplastic ribbons of basement membrane-enclosed epithelium growing endophytically into the underlying stroma with no evidence of invasive malignancy. Immunohistochemistry was positive for p16. The patient made an uneventful recovery with unchanged visual acuity and normal extraocular movements following surgery.

Conclusion

The case presented demonstrates the variability within the sinonasal tract that IP can develop, and the individuality of each case necessitating tailored operative techniques for complete excision whilst minimising recurrence rates. We also present a combined endoscopic approach for the en-bloc resection of a NLD IP with no clinical recurrence at 7 months follow up.