

*Fifty First Annual Meeting  
of the  
Irish Otorhinolaryngology  
Head and Neck Society*



*Sir William Robert Wills Wilde  
(1815 – 1876)*

*Lough Erne Resort  
Enniskillen, Co. Fermanagh  
Friday 8<sup>th</sup> & Saturday 9<sup>th</sup> October 2010*

## *Officers of the Society*

<i>President:</i>	<i>Mr. W. J. Primrose</i>
<i>Vice President:</i>	<i>Mr. T. O'Dwyer</i>
<i>Secretaries:</i>	<i>Mr. J. G. Toner (Northern)</i> <i>TBC (Southern)</i>
<i>Travelling Secretary:</i>	<i>Ms. C. Scally</i>
<i>Editor of Proceedings:</i>	<i>Mr. P. Gormley</i>
<i>Treasurer:</i>	<i>Mr. N. Patil</i>
<i>Council Members:</i>	<i>Mr. R. Adair</i> <i>Mr. E. J. McNaboe</i> <i>Mr. D. McShane</i> <i>Mr. G. O'Leary</i>

*Past Presidents of the Irish  
Otorhinolaryngology Society*

*T. G. Wilson  
F. A. McLaughlin  
R. R. Woods  
J. McAuliffe Curtin  
D. Craig  
Kennedy Hunter  
M. J. Roberts  
R. S. McCrea  
M. O'Brien  
R. M. Harvey  
A. Blayney  
T. Wilmot  
E. Fenelon  
H. W. H. Shepperd  
W. Doyle Kelly  
A. C. M. L. Miller  
A. Maguire  
J. E. T. Byrne  
H. Burns  
A.G. Kerr  
K. Tobin  
J. H. A. Black  
M. A. Walsh  
D. A. Adams  
A. Blayney*

## *Wilde Discourers*

1961	<i>Terence Cawthorne</i>	1986	<i>P. Alberti</i>
1962	<i>Ian Simpson Hall</i>	1987	<i>Tauno Palva</i>
1963	<i>C.P. Wilson</i>	1988	<i>Philip Stell</i>
1964	<i>Ronald Macbeth</i>	1989	<i>Dietrich Plester</i>
1965	<i>W.H. Struben</i>	1990	<i>Arnold G. Maran</i>
1966	<i>Angell James</i>	1991	<i>David Brain</i>
1967	<i>Michel Portmann</i>	1992	<i>William Panjee</i>
1968	<i>Howard House</i>	1993	<i>Tony Bull</i>
1969	<i>Joseph Ogura</i>	1994	<i>Richard. Ramsden</i>
1970	<i>J.P. Hood</i>	1995	<i>David Kennedy</i>
1971	<i>Harold F. Schucknecht</i>	1996	<i>L. Ryan</i>
1972	<i>Donald F.N. Harrison</i>	1997	<i>Ugo Fisch</i>
1973	<i>Stuart Strong</i>	1998	<i>R. Goody</i>
1974	<i>Douglas Bryce</i>	1999	<i>E. McKay</i>
1975	<i>John Ballantye</i>	2000	<i>J. Fredrickson</i>
1976	<i>Claus Jansen</i>	2001	<i>Patrick Gullane</i>
1977	<i>Gabriel Tucker</i>	2002	<i>William Coman</i>
1978	<i>L.B.W. Jongkees</i>	2003	<i>Thomas McDonald</i>
1979	<i>Robert Pracy</i>	2004	<i>Trevor McGill</i>
1980	<i>George Nager</i>	2005	<i>G Nolst Trenite</i>
1981	<i>R.B. McDowell</i>	2006	<i>George Browning</i>
1982	<i>R. Wentges</i>	2007	<i>Kevin Gibbin</i>
1983	<i>Victor Goodhill</i>	2008	<i>Max McCormick</i>
1984	<i>Douglas Ranger</i>	2009	<i>Peter Wormald</i>
1985	<i>H. Spondalin</i>		

## *Programme Overview*

*Friday 8<sup>th</sup> October 2010*

<b><i>Golf</i></b>	<b><i>Lough Erne Hotel &amp; Golf Resort</i></b>
<b><i>Registration</i></b>	<b><i>The desk opens at 11.00 am, and delegates are encouraged to register early.</i></b>
<b><i>Lunch</i></b>	<b><i>12.30 - 1.30 pm Soup and sandwiches</i></b>
<b><i>Academic Meeting</i></b>	<b><i>2.00 - 2.10 pm Welcome &amp; Introduction 2.10 - 3.40 pm Paediatrics &amp; Otology Session 3.40 - 4.10 pm Coffee &amp; Trade Exhibition 4.10 - 5.30 pm Rhinology &amp; General Session</i></b>
<b><i>Council Meeting</i></b>	<b><i>6.00 - 7.00 pm</i></b>
<b><i>Buffet Supper (dress - smart casual)</i></b>	<b><i>8.00 pm</i></b>

*Saturday 9<sup>th</sup> October 2010*

<b><i>AGM / Business meeting of the Irish Otorhinolaryngology Society</i></b>	<b><i>8.30 - 9.00 am</i></b>
<b><i>Academic Meeting</i></b>	<b><i>9.00 - 11.00 am Head &amp; Neck Session Free Papers 11.00 - 11.30 am Coffee &amp; Trade Exhibition/Posters 11.30 - 1.00 pm Otology Symposium</i></b>
<b><i>Lunch</i></b>	<b><i>1.00- 2.00 pm Soup and sandwiches</i></b>
<b><i>Afternoon</i></b>	<b><i>At Leisure: Golf/Fishing/Horse Riding Local attractions including Florence Court / Marble Arch Caves further details from Reception</i></b>
<b><i>Wilde Discourse</i></b>	<b><i>7.00 pm</i></b>
<b><i>Cocktail Reception (hosted by Bonavox)</i></b>	
<b><i>Banquet (dress - formal)</i></b>	<b><i>8.30 pm</i></b>

*51<sup>st</sup> Meeting of*  
**IRISH OTORHINOLARYNGOLOGY SOCIETY**  
**ACADEMIC PROGRAMME**

**Friday 8<sup>th</sup> October 2010**

**2.00pm Welcome and Introduction**  
**President: Mr W J Primrose**

**2.10-3.40pm Paediatrics & Otology Session: Free Papers**  
**Chairs: Mr M Colreavy & Ms C Scally**

**2.10 Study of Post Meningitis Audiology Referral and Hearing Assessment in a Regional Children Hospital**  
S Subiramanian, S Christie, K Trimble, C English

**2.18 Autoimmune Sensorineural Hearing Loss, The Challenge of Diagnosis & Treatment. A Case Series**  
Ms Iseult Coolahan, Mr Rory Mc Conn Walsh,  
Dr Mary Keoghan, Consultant Immunologist Beaumont Hospital, Dublin

**2.26 Childhood Hearing Impairment-A Review of Management in the Past 10 Years**  
S Walls, E Dickson, C Scally, B Devlin

**2.34 Paediatric Day Case Major Ear Surgery**  
R Mehta, JG Toner

**2.42 Choanal Atresia and its Long Term Otolaryngological Outcomes**  
Dr H Swanepoe, D Fitzgerald, M Colreavy

**2.50 Management of the Otolaryngological Sequelae of Pierre Robin Sequence-Associated Craniofacial Abnormalities**  
D Fitzgerald, F Glynn, M Earley, H Rowley

**2.58 Local Anaesthesia Cochlear Implantation - How & Why**  
F Toner , C Jackson, JG Toner

## **Paediatrics & Otology Session:**

- 3.06 **Autologous Bone Graft in Middle Ear and Mastoid Reconstruction A Case Series and Literature Review**  
P Roche, F Glynn, R Mc Conn Walsh
- 3.14 **Hearing Results in Revision Mastoid Surgery: Characteristics and Outcomes in Comparison with Primary Surgery**  
Stephen Ryan, Sarah O Shaughnessy & Peter Gormley
- 3.22 **Identification of Bone Regions from the Drill Acoustics to Aid in Temporal Bone Surgical Procedures**  
Pierce Brady, Martin Hill, John Barrett, Joe Connell, Brendan Fennessy, Peter O'Sullivan
- 3.30 **Current State - Newborn Hearing Screening Northern Ireland**  
TJ Rao, S Nadig, JG Toner
- 3.40 - 4.10 pm **Coffee & Trade Exhibition / Posters**
- 4.10 - 5.40 pm **Rhinology & General Session: Free Papers**  
**Chairs: Mr D Smyth & Mr R Adair**
- 4.10 **The 'Waterford Splint Technique': An Innovative Tool for Objective Evaluation of Nasal Valve Compromise**  
K Davies, D Smyth, M Shandilya
- 4.18 **Isolated Sphenoid Sinusitis: Management Strategies**  
AE McGreevy, D McCaul, PJ Leyden
- 4.26 **The Use of the I-Phone to Triage Patients with Nasal Bone Injuries**  
Barghouthi T, Speaker RB, Glynn F, Walshe P, Lacey P, Gaffney R, Walsh RM, Walsh M
- 4.34 **Impact of Fracture Nasal Bones on Sports People**

S Jaber, P Lennon, J E Fenton



## **Rhinology & General Session:**

- 4.42      **Eosinophil Peroxidase as a Novel HER2 Ligand**  
M Amin, K Hennigan, P Ramasamy, MT Walsh, M Walsh, R Costello
- 4.50      **The Two Week Wait For Head and Neck Cancer Referrals:  
Red Flag to a Bull?**  
A Waters, M Moran, V Paleri, WJ Primrose
- 4.58      **Two Week Rule - Referrals for Suspected Head and Neck  
Cancer: An Audit of Clinical Effectiveness**  
TS Ahmed, C Pepper, R Mistry
- 5.06      **Practices, Pitfalls and Perceptions of an Open Access  
ENT Casualty Service**  
C Smyth, M Moran, C Diver, S Hampton
- 5.14      **Latex and Silicone Contamination of Surgical Wounds**  
PR Bell, BP McNicholl
- 5.22      **Cuts, Cuts and More Cuts!**  
Harris R, Olding J, Olding C, Lacey C (A and E lead),  
Gurling R (Radiology lead) and Bentley R (Maxillofacial lead),  
Baskeville P (Vascular lead), Oakley R (ENT lead)
- 5.30      **Close of session**
- 6 - 7pm: IOS Council meeting**

**Saturday 9<sup>th</sup> October 2010**

**8.30 – 9.00am: AGM of Irish Otorhinolaryngology Society**

**9.00 – 11.00am      Head & Neck Session: Free Papers**  
**Chairs: Mr L Skinner & Mr DS Brooker**

9.00      **Vocal Cord Augmentation – New Methods**  
            W Hasan, D Leonard, D Charles, J Russell

9.08      **The Assessment of Sestamibi Imaging in the Localization of**  
**Parathyroid Disease**  
            Mr Tom Moran, Prof Con Timon

9.16      **Day Case Tonsillectomy – The Tallaght Experience**  
            J Kulasegarah, N Murphy, G Fitzgerald, D McShane

9.24 **Is the Higher Post Op Bleeding Rate Inherent in Coblation**  
**Tonsillectomy?**  
            Khan I, Abelardo E, Menakaya O, Jaramillo M, Mahmood K

9.32      **Thyroid Nodules: Incidence of Malignancy and Interpretation of**  
**Fine-Needle Aspiration for the Clinician**  
            M Sadadcharam, M Murphy, A Tuthill, P Sheahan

9.40      **The Role of Bfgf in Head and Neck Cancer**  
            B Fennessy, J Woolley, P O' Sullivan, T Cotter

9.48      **Evaluating Outcomes in Lateral Temporal Bone Resection**  
            O'Connor A, Toner M, Kinsella J, Timon C

9.56      **Unilateral Vocal Cord Paralysis in the Presence of Thyroid Disease:**  
**Pathopneumonic for Malignancy?**  
            F O'Duffy, C I Timon

10.04     **A Ten Year Experience of Intralesional Cidofovir Use for Laryngeal**  
**Papillomatosis: A Safe and Effective Treatment for this Disease**  
            LM Devlin, M Moran, B Devlin, WJ Primrose

10.12     **Surgical Management of Parotid Gland Pathology: A Ten Year Review**

JC Oosthuizen, C Timon AJ Curran

## **Head & Neck Session:**

- 10.20      **The Impact of the Harmonic Scalpel on Hypocalcaemia after Total Thyroidectomy**  
C Jackson, A McGreevy, B Hanna, E McNaboe, G McBride
- 10.28      **Fine Needle Aspiration Cytology and Histopathology in a Regional Head & Neck Centre - Diagnostic Accuracy and Clinical Impact**  
Basheeth N, McCarthy A, Smyth D, Skinner L, Murphy M, Donnelly M
- 10.36      **The Accuracy of HIPE with Regards to the Recording of Tracheostomies**  
R Kealy, P Lennon, NP Shine, JP Hughes, JE Fenton
- 10.44      **ENT Trainees Experience with Local and Regional Flap Reconstruction**  
P Lennon, N Shine
- 10.52      **Endoscopic Resection of Sinunasal Tumour: The Role of Radiofrequency Coblation**  
R A O'Connell, I Keogh, J Lang

**11.00 - 11.30am      Coffee & Trade Exhibition / Posters**

## **POSTER PRESENTATIONS**

1.      **Day Case Pediatric Tonsillectomy - A Feasibility Study**  
TJ Rao, S Gallagher, R darling, JG Toner
2.      **Safeguarding Medical Literature**  
Colleen Heffernan; Prof J Fenton
3.      **A Mature Teratoma of Neck**  
Shakeel M, Khan I Duff Leanne, Hussain A
4.      **The Changing Face of Informed Surgical Consent**  
JC Oosthuizen, P Burns, C Timon
5.      **Polydioxanone (Pds) Foil in Extracorporeal External Approach Augmentation Septo-Rhinoplasty**  
T Al Sindi, D Smyth, M Shandilya

6. **Forgotten T-tube in the middle ear**  
M Shakeel, A Trinidade, I Khan, K W Ah-See.

**11.30 - 1.00pm**      **OTOLOGY SYMPOSIUM:**  
**Co-Chairs - EJ McNaboe & B Conlon**

**Panel Members:**

N Bailie - 'Flattening the learning curve in Stapes surgery'

J Halik - 'Measuring patient benefit from hearing restoration surgery: a better way?'

Robert M Owens - 'Planning flaps in Tympanoplasty'

**Difficult Cases Panel**

**1pm: Close of session**

**7pm: *The Wilde Discourse: Dr Fred D Owens MD***

**'Witness to the Evolution of Otology: My Otological Journey 1966-2010'**

**Abstract:**

The evolution of Otology was accomplished through advances in education; technology; anaesthesia; and medicine in general. I was privileged to experience the evolution of Otology from 1966 until the present time. Physicians, engineers and industry providers from throughout the world participated in these advances for the treatment available to the Otologic patients.

I was privileged to personally know many of these physicians, engineers and industry providers in this era.

**ABSTRACTS**  
(in order of presentation)

**Friday 8<sup>th</sup> October 2010**

**PAEDIATRICS & OTOLOGY SESSION - 2.10 pm - 3.30 pm**

2.10 - 2.18 pm

**Study of Post Meningitis Audiology Referral and Hearing Assessment in a Regional Children Hospital**

S Subiramanian, S Christie, K Trimble, C English

**Objective**

To assess current practice of post-meningitis Audiology referral and Hearing assessment at a regional Children Hospital and to compare it with UK National guideline.

**Method**

This is a Retrospective Audit over 1-year period (Oct-08 to Sep 09) of children admitted with Meningitis and/or Meningococcal sepsis. List of eligible children was obtained from medical coding department and infectious disease ward in Children Hospital. Information obtained by review of medical notes and follow up clinic letters. Information from Non-attendees to clinic was obtained by telephone calls to GP Surgery and Parents.

**Results**

32 patients were eligible for referral and 8(25%) of them were not referred. 6(25%) of the referred patients did not attend the hearing-screening clinic. In nearly 44% of the patients the assessment time was more than 6 wks. Sensory neural hearing deficit was found in one (5%) out of 18 children who had undergone assessment.

**Conclusions**

Recommendation from recent literature is very clear for the need of early intervention to prevent permanent hearing loss. Results may indicate Lack of awareness among Staff and poor education to parents prior to discharge regarding the need for urgent assessment. Fax referral with a universal referral form and In-Patient hearing screening when possible can reduce non-referral and non-assessment rate. Liaison with Public Health Dept can provide 'safety net'.

2.18 - 2.26 pm

**Autoimmune Sensorineural Hearing Loss, The Challenge of Diagnosis & Treatment.  
A Case Series**

Ms Iseult Coolahan, Mr Rory Mc Conn Walsh, Dr Mary Keoghan, Consultant Immunologist Beaumont Hospital, Dublin

**Objective**

Autoimmune Inner Ear Disease (AIED) is a rare entity, making it challenging to diagnose and study. Bernstein et al (2001) give an incidence of 1% in all patients presenting with sensorineural hearing loss. It is typically characterised by a rapidly progressive, often fluctuating, bilateral sensorineural hearing loss occurring over a period of weeks or months.

We sought to investigate and conclusively implicate the immune system in the development of AIED in a small cohort of patients.

**Methods**

We present a case series of 36 patients with a definitive diagnosis of AIED. Diagnosis was made on the basis of clinical, serial audiological, immune tests and response to immunotherapy.

**Results**

All of our patients responded to a variety of immunotherapies. We specifically chronicle the differing therapies and patterns of recovery and remission.

**Conclusion**

Autoimmune Sensorineural loss, though rare, is a challenging diagnosis to make and can be a difficult disease to treat.

We present a case series of 36 patients with definitive diagnosis of AIED.

We focus on their management and response to immunotherapy and discuss the latest research implications for current and future trends in treatment.

We present a simple algorithm to facilitate diagnosis and treatment options in this challenging patient population.

2.26 - 2.34 pm

**Childhood Hearing Impairment-A Review of Management in the Past 10 Years**  
S Walls, E Dickson, C Scally

**Objective**

An audit of children with hearing impairment was undertaken 10 years ago to provide baseline data on the management of children with hearing impairment. The results showed that the service at this stage was unsatisfactory. It highlighted fragmented methods of data collection and showed evidence of late diagnosis and late aiding of

children. The aim of this audit was to see if there has been an improvement in management over the last 10 years, and in particular the last few years with the introduction of the Newborn Screening Programme(NBSP)

### Methods

Children aged 16 years and under with hearing aids were identified from three databases. These included the local education board, health and Social Care Trust and the Northern Ireland Child Health System. Review of the case notes was carried out. This data was compared to similar audit undertaken in 1998.

### Results

The prevalence of hearing aid use was 1.89 per 1000 children. Only 27% of these children were identified by all 3 information sources. Overall mean age until diagnosis was 35.5 months with mean age at hearing aid provision 48.1. Those children identified by the NBSP had a mean age until diagnosis of 5.6 months and a mean age to hearing aid provision of 8.1 months.

### Conclusions

Newborn screening programme identifies those children with hearing impairments earlier than the general population with earlier hearing aid prescription. There is still a problem with incomplete data collection for these children.

2.34 - 2.42 pm

### **Paediatric Day Case Major Ear Surgery:**

R Mehta, JG Toner

### Objective

Traditional concept of major ear surgery as inpatient is changing gradually. Recent evidence from literature favours major ear surgery as day case even in paediatric population. Our objective was to have an overview of major ear surgery in our paediatric practice, to ascertain percentage of children undergoing major ear surgery who were not suitable for same day discharge and to determine factors responsible for delayed discharge. Finally comparing our practice with recent studies in order to formulate a protocol for our unit.

### Methods

Retrospective review of the charts of all the children who had major ear surgery as inpatient from Jan 2005 to July 2010 in a District general hospital setting.

### Results

Out of 110 major ear surgeries performed on children, 62 (57%) were day cases. Rest 48 (43%) were considered not fit for same day discharge and they spent average 18.9



hrs in the ward postoperatively. 54% of inpatient surgeries were combined approach tympanoplasty/ mastoid tympanoplasty. Vomiting was most common cause of delayed discharge (38% cases). Nausea, pain, dizziness, and bleeding were other factors that prevented children from going home same day. In 12(27%) cases there was no reason for overnight stay.

#### Conclusion

Percentage of paediatric day case major ear surgeries could be significantly increased by availability of dedicated day case ward and adequate control of factors like vomiting, nausea and pain.

2.42 - 2.50 pm

#### **Choanal Atresia and its Long Term Otolaryngological Outcomes**

Dr H Swanepoe, D Fitzgerald, M Colreavy

#### Objectives

Choanal Atresia occurs in 0.82 per 10,000 live births, and is twice as common in the female population. It may occur as a stand-alone anomaly, or as part of the CHARGE syndrome. The objective of our study is to analyse the long-term otolaryngological outcomes for the affected patient group.

#### Methods

We carried out a retrospective review of children who have attended our tertiary referral paediatric institution with choanal atresia. We looked at their long-term otolaryngological outcomes, with particular reference to nasopharyngeal symptoms, sinonasal symptoms and otological sequelae.

#### Results

Our results outline several interesting long-term manifestations of choanal atresia.

#### Conclusions

Bilateral Choanal Atresia in the neonate is an emergency. Long-term follow-up of children with Choanal Atresia should be undertaken, in order to ensure their ongoing otolaryngological health.

2.50 - 2.58 pm

#### **Management of the Otolaryngological Sequelae of Pierre Robin Sequence-Associated Craniofacial Abnormalities**

D Fitzgerald, F Glynn, M Earley, H Rowley

#### Objectives

Pierre Robin Sequence is a heterogeneous birth defect with a prevalence of 1 per 8,500 live births, which has associated craniofacial abnormalities known to predispose to marked otolaryngological sequelae. Our study aims to analyse these sequelae in our patient cohort.

### Methods

We performed retrospective analysis of all children with Pierre Robin Syndrome, who have attended our tertiary referral paediatric institution, between 1991 and 2010. We looked at the incidence of ENT problems in this group, with reference to airway management, nutrition and otological intervention.

### Results

Airway management may be successfully achieved, in many cases, by conservative methods. Feeding may, however, still be an issue. Early audiological assessment is of paramount importance if normal speech development is to be achieved.

### Conclusions

Our study focuses on the otolaryngological problems faced by Pierre Robin Sequence patients, and the management strategies that have been implemented, in order to optimise their outcome.

2.58 -3.06 pm

### **Local Anaesthesia Cochlear Implantation Using - How & Why**

C Jackson, F Toner, J Toner

### Objective

Cochlear implantation is recognised as the 'Gold Standard' surgical treatment for the profoundly deaf. Some patients who may benefit from cochlear implantation are considered an unacceptably high anaesthetic risk for a 3 hr procedure with forced hypotension. We present patients who have been successfully implanted at our centre using a combination of local anaesthetic and sedation.

### Method

Case review of notes of patients who have had a cochlear implant inserted under local anaesthetic at one centre. The Cochlear implant database was used to identify the patients and the PAS system used to track their notes.

### Results

14 patients were identified as having their cochlear implant inserted under local anaesthetic over the past 14 years. Data was analysed on patient selection, anaesthetic assessment and outcome. POSSUM scores were calculated to predict risk of general anaesthesia on morbidity and mortality. All cases were implanted

successfully in a one-stage procedure. There were no significant intra-operative or post-operative complications.

#### Conclusion

Cochlear implantation under local anaesthetic is a safe and effective procedure. It is of benefit for those patients who may otherwise be denied surgery on the grounds it represents too great a risk.

3.06 - 3.14 pm

#### **Autologous Bone Pate in Middle Ear and Mastoid Reconstruction A Case Series and Literature Review**

P Roche, F Glynn, R Mc Conn Walsh

#### Objectives

To review and evaluate the outcome of 45 patients who underwent mastoid obliteration using autologous bone pate by the senior author over a three year period at Beaumont Hospital.

#### Methods

A retrospective review of patient operative records, post operative otologic progress and audiologic outcome was performed.

#### Results

The incidence of recurrent cholesteatoma and retraction pocket was reduced. In addition, post reconstruction hearing outcomes improved.

#### Conclusions

Autologous bone pate is a safe and effective biomaterial which is suitable for use in mastoid obliteration and has in our experience, proven beneficial in modified radical mastoidectomy, CSF leak repair, Skull base surgery and middle ear reconstruction.

3.14 - 3.22 pm

#### **Hearing Results in Revision Mastoid Surgery: Characteristics and Outcomes in Comparison with Primary Surgery**

Stephen Ryan, Sarah O Shaughnessy & Peter Gormley

Department of ENT surgery, University Hospital Galway, Galway, Ireland

#### Objective

To analyse the characteristics, intraoperative findings and hearing outcomes post revision mastoid surgery and to compare with those of primary surgery to help predict and improve outcomes for mastoid surgery. .

#### Methods

A retrospective chart review was performed on 40 patients who underwent revision mastoid surgery for chronic otitis media with or without cholesteatoma over a 20-year period (1990-2010) and were followed for more than 12 months. Intraoperative findings which contributed to the need for revision surgery were identified together with postoperative hearing outcomes.

## Results

40 patients underwent revision surgery. 33 cases (83%) had persistent otorrhoea, 24 cases (60%) recurrent or residual cholesteatoma, 29 cases (73%) had mastoid cavity problems with residual air cells most frequently found in the retrofacial, mesotympanum, sinus tympani, mastoid tip and sinodural angle, 22 cases (55%) had a high facial ridge, 14 cases (35%) required meatoplasty and 18 cases (45%) were found to have a tympanic membrane perforation or retraction.

Comparison of the postoperative hearing results showed that the average postoperative Air-Bone Gap was 32.5 dB for the primary and 32 dB for the revision surgery groups. Primary mastoid surgeries lead to lower hearing threshold by 44 dB whereas revision mastoid surgery caused a raised hearing threshold by 48 dB. A dry and safe ear was achieved in 83% of patients

## Conclusion

This study highlights the surgical outcomes following primary mastoid surgery and identifies the key factors which may be responsible for failure of primary surgery. These included high facial ridge, recurrence or residual cholesteatoma, persistent discharge, and inadequate meatoplasty.

3.22 - 3.30 pm

## **Identification of Bone Regions from the Drill Acoustics to Aid in Temporal Bone Surgical Procedures**

Pierce Brady, Martin Hill, John Barrett, Joe Connell, Brendan Fennessy,  
Peter O'Sullivan

## Objective

Currently otolaryngologists rely on CT scans, knowledge and experience to identify the regions of the temporal bone. Our work aims to aid the otolaryngologist by identifying different bone regions of the temporal bone through analysis of the drills acoustic signature. This would instil higher confidence in surgical decisions and could potentially decrease operation times.

## Methods

Mastoidectomies were performed on cadaveric temporal bones. Throughout the procedures the audio was recorded for different bones, speeds, burrs and stroke styles. Different features were calculated and the data was separated into training

and testing groups. The ability to identify the different bone regions of the temporal bone was then examined.

### Results

The drill acoustics exhibit a change in harmonic content (Timbre change) when in contact with different bone regions. Thus features which represent timbre were able to identify the different regions of the temporal bone with an accuracy of  $97.72 \pm 1.77\%$ . All drilling parameters significantly affected the drill acoustics, with the best accuracy been obtained when these factors were considered.

The drill acoustics changed on different dates, even though the drill parameters remained the same. Therefore it is currently not possible to identify the bone regions with a reference set from an earlier date.

### Conclusions

This work has demonstrated the feasibility of acoustic identification of bone regions during temporal bone drilling and further work is under way to bring it to a stage where it is suitable for clinical use.

3.30 3.38 pm

### **Current State - Newborn Hearing Screening Northern Ireland**

TJ Rao, S Nadig, JG Toner

### Objectives

Assess the current incidence of Permanent Childhood Hearing Impairment (PCHI) in Northern Ireland and efficiency of current Newborn Hearing Screening.

### Materials & Methods

Retrospective study of screening of all 23857 live births from April 2008 to March 2009. Data was obtained from 6 Audiology units covering Newborn Hearing Screening in Northern Ireland.

### Results

The incidence of PCHI in our study was 0.55/1000 per live births of a total of 23857 born during the period of study. Not all live births had the screening as some parents declined screening and a small percentage did not attend their appointments

### Conclusion

The general reported incidence of PCHI is 1-3/1000 livebirths. Early identification and appropriate intervention can help overcome the resultant disability. The incidence of PCHI in Northern Ireland is lower than the established incidence at 0.55 per 1000 live births. Improvements in administration of hearing screening to reduce infants

that did not attend is needed. Further data on reasons parents that decline is needed to target any concerns.

## **RHINOLOGY & GENERAL SESSION - 4.10 - 5.50 pm**

4.10 - 4.18 pm

### **The 'Waterford Splint Technique': An Innovative Tool for Objective Evaluation of Nasal Valve Compromise**

K Davies, D Smyth, M Shandilya

#### **Objective**

To objectively evaluate nasal valve compromise and its effect on the nasal airway.

#### **Method**

Patients with complex nasal airway obstruction are assessed at the Combined Nasal Airway Clinics. Routine subjective evaluation with Cottle's and modified Cottle's tests are supplemented with the use of the 'Waterford Splint Technique'. A standard external nasal splint (Xomed Medtronic, Jacksonville Massachusetts) is cut to size and applied to splay the upper and lower cartilage open independently and then simultaneously. This allows static nasal wall support and/or opening of the internal nasal valve, thereby potentiating objective evaluation in the form of rhinomanometry and acoustic rhinometry.

#### **Results**

77 patients 48 male and 29 female ( age range 15-72 ) with a complex history of nasal airway obstruction were assessed in the last year. Of these, 18 patients displayed objective variation in their nasal airway by manipulating the nasal valve area with the nasal splint. Using this standardized protocol aided by the 'Waterford Splint technique', we have devised a treatment algorithm as an aide to management planning of patients with complex nasal obstruction.

#### **Conclusion**

This technique allowed objective evaluation of nasal valve compromise by providing reproducible static support of the lateral nasal wall and opening of the internal nasal valve. Although Cottle's and modified Cottle's tests are invaluable investigations, they do not allow for objective evaluation. Based on our experience in the combined nasal airway clinic over the last year, we recommend this technique to Rhinologists for inclusion in their diagnostic protocol of Nasal Valve Compromise.

4.18- 4.26 pm

### **Isolated Sphenoid Sinusitis: Management Strategies**

AE McGreevy, D McCaul, PJ Leyden

#### **Objective**

To evaluate and report our experience in the management of isolated acute sphenoid sinusitis and its rationale, and to highlight the importance of timely intervention and appropriate surgery, in order to avoid unnecessary complications and morbidity.

#### **Methods**

We reviewed three patients presenting with acute isolated sphenoid sinus disease, their diagnosis and radiological findings, management, clinical course, intra-operative findings, and surgical technique.

#### **Results**

Three cases of acute isolated sphenoid sinusitis are described, each managed according to their individual symptoms, signs and clinical course. All three patients presented with severe headache of up to three weeks, and variably with vomiting, pyrexia, photophobia, and nasal symptoms. The diagnosis was confirmed by CT and potential intracerebral complications evaluated with MRI. Case one received medical treatment alone. Case two was initially managed medically, and progressed to sinus surgery during the acute admission. Case three was managed medically and returned for semi-elective sinus surgery. All three patients experienced complete resolution of their symptoms with no complications.

#### **Conclusions**

Isolated sphenoid sinusitis is a rare entity and often difficult to diagnose secondary to its nonspecific presentation, commonly headache in the absence of other rhinosinusitis symptoms. The location and surrounding anatomy of the sphenoid sinus renders the patient at risk of serious complications, significant morbidity and uncommonly mortality in the event of infection, necessitating timely and appropriate intervention. Each individual case should be managed in accordance with clinical signs, symptoms, and clinical course in order to avoid unnecessary adverse sequelae.

4.26 - 4.34 pm

### **The Use of the I-Phone to Triage Patients with Nasal Bone Injuries**

Barghouthi T, Speaker RB, Glynn F, Walsh M

#### **Objective**

To identify the accuracy of the I-phone in assessing patients with nasal bone injuries, to determine if out patient attendance is necessary.



## Methods

Prospective study of patients with nasal injuries attending the weekly ENT emergency clinic at Beaumont Hospital. The patient is assessed and examined and a pre-set questionnaire is filled out. An antero-posterior and an overhead photograph of the nose was taken at the focal distance of a 3 mega-pixel I-phone camera.. The pictures are then emailed to a senior member of the team who reviews the pictures and determines based on the images whether intervention in the form of manipulation of nasal bones is required. The results were then compared to the actual assessment and management in the clinic.

## Results

Of the total number of patients involved to date, 93.3% showed a direct correlation between the perceived need for treatment based in the clinical images and the actual management in the out patients. Results to date also showed the test to be 87.5% specific 100% sensitive.

## Conclusion

We conclude that the use of the iphone to assess nasal bone injuries could be a useful tool in correctly identifying patients that require intervention in the form of nasal bone manipulation. If clinically applied, this would serve to reduce the number of patients that would need to be referred to the emergency clinic.

4.34 - 4.42 pm

## **Impact of Fracture Nasal Bones on Sports People**

S Jaber, P Lennon, J E Fenton

## Objectives

Fractured nasal bones requiring an operative reduction (MNB) are a common sequelae of sports injury. The advice on timing of return to sports varies between specialists and there is very little data in the literature regarding the impact that these injuries have on the athlete. The aim of our study is to analyze the post operative complications, compliance to doctors advice, and effect on performance and back to sports between sports people who underwent manipulation of nasal bones for a fracture deviation.

## Methods

A retrospective study of sports' nasal injuries sustained between 2007 and 2009 was carried out. A telephone survey was performed during which patients were asked questioning regarding injury, surgery, satisfaction, compliance to advice and return to sports.

## Results

A total of 133 patients with fractured nasal bones due to sport injuries were identified. One hundred and three patients underwent an MNB. There was an 84.4% response rate. Manipulation was carried out within 14 days in 87% of the cases. Four per cent required analgesia post MNB. Forty six per cent complied with medical advice on timing of return to sport. Four patients underwent a subsequent septorhinoplasty. Over one third (37%) of the patients described fear of re-injury on returning to active sport. Three patients quit contact sports following their MNB.

## Conclusion

Compliance on return to sports was not always followed. The satisfaction rate from the aesthetic and functional point of view is high. Notable fear of re-injury is reported within sport patients following their MUA.

4.42 - 4.50 pm

## **Eosinophil Peroxidase as a Novel HER2 Ligand**

M Amin, K Hennigan, P Ramasamy, MT Walsh, M Walsh, R Costello

## Objectives

Eosinophil infiltration is a feature of allergic rhinitis and of nasal polyps. Eosinophils interact with resident cells, including epithelial cells and undergo degranulation. Among the eosinophil granule proteins released are a group of cationic granule proteins which include eosinophil peroxidase (EPO). Recent studies suggest that these granule proteins can up-regulate expression of cell proliferation proteins and hence contribute to airway remodelling and/or repair in allergy. The HER family of receptors are also involved in airway remodelling and mediate mucin production in airways, in allergy and other diseases. These receptors depend on N-linked glycosylation for function. Based on preliminary proteomics data, we hypothesized that the eosinophil granule protein EPO may engage members of the HER family in epithelial cells with consequences for cell proliferation and mucin production.

## Methods

We used cell culture, real-time PCR, confocal microscopy, Western blotting and immunoprecipitation to study the interaction of EPO with human bronchial epithelial cells. EPO was physically associated with the HER2 receptor and induced HER2 phosphorylation.

## Results

Engagement of HER2 by EPO resulted in consequences including phosphorylation of focal adhesion kinase and extracellular-regulated kinase, both of which were dependent on N-linked glycosylation, and in clustering of  $\alpha$ 1-integrin on the cell surface. Finally, EPO-induced HER2 activation caused up-regulation of transcriptional

expression of HER2 and of its endogenous ligand MUC4, facilitating perpetuation of HER2-mediated EPO effects on epithelial cells.

#### Conclusion

Thus we have identified EPO as a novel HER2 ligand and a potential contributor to airway epithelial cell proliferation and remodelling in diseases characterised by eosinophil accumulation and degranulation.

4.50 - 4.58 pm

### **The Two Week Wait For Head and Neck Cancer Referrals: Red Flag to A Bull?**

A Waters, M Moran, V Paleri, WJ Primrose

#### Objective

To compare the effectiveness of the red flag referral/two week wait referral system on cancer diagnosis rates in two different National Health Service head and neck cancer tertiary referral centres.

#### Methods

Retrospective review of cancer databases (Cancer Patient Pathway System [NI] and Data for Head and Neck Oncology [England]) in regard to red flag/two-week wait referrals and the pick-up rate of cancers of the head and neck. Data was collected for the year 2009 in two tertiary head and neck cancer referral centres.

#### Results

In 2009 in Northern Ireland there were 279 confirmed cancers of the head and neck. 1058 red flag/two week wait referrals were made to ENT departments, of which only 5% were confirmed as cancers. In addition, 660 referrals from other clinicians were upgraded by ENT consultants and the rate of confirmed cancers in this group was lower again at 2%. These figures will be discussed, and comparison will be made with data from the Newcastle Upon Tyne Foundation NHS Trust, where the two-week wait referral system has been in place for almost ten years.

#### Conclusions

This study illustrates the potential for the shortcomings and successes of a red flag referral pathway for suspected cancers of the head and neck. The need for careful coordination of primary and secondary care services is highlighted, in particular with regard to education on ENT/Head and Neck red flag referral symptoms.

4.58 - 5.06 pm

## **Two Week Rule ' Referrals for Suspected Head and Neck Cancer: An Audit of Clinical Effectiveness**

TS Ahmed, C Pepper, R Mistry

### Objective

The NHS Cancer Plan specifies targets for cancer management in Northern Ireland and Great Britain and guarantees hospital outpatient appointments within two weeks of GP referrals being made for suspected cancer. This study aims to assess the effectiveness of the 'two week rule' pathway for suspected head and neck malignancy by examining the referral pattern and yield of significant pathology in a regional cancer network.

### Methods

Suspected head and neck cancer referrals to otolaryngology departments were audited in two district general hospitals over the first quarter of 2010. Data was gathered through a retrospective review of patient charts including GP letters, clinical notes, clinic letters and IT databases supplemented by radiological and histopathological data.

### Results

114 referrals were made via the fast-track pathway. All patients received initial outpatient appointments within the stipulated time frame. 17 referrals (14.9%) were made without the national suspected cancer referral proforma. The most common referral reasons were 'persistent hoarseness >6 weeks' (47 patients, 41.2%) and 'unresolving neck masses >3 weeks' (34 patients, 29.8%). Several referrals were inappropriate. 55 patients (48.2%) required no investigation and only 6 patients (5.3%) were found to have underlying malignancy.

### Conclusions

Most patients with head and neck cancer are not referred via the fast-track pathway. The system has good intentions but whether there are overall patient benefits is controversial: the pathway may actually lengthen the time from referral to initial consultation for most cancer patients. A review of the referral criteria and GP education may help improve the system's efficiency.

5.06 - 5.14 pm

## **Practices, Pitfalls and Perceptions of an Open Access Ent Casualty Service**

C Smyth, M Moran, C Diver, S Hampton

### **Objective**

To determine current utilization of an ENT casualty department, assess appropriateness of attendances and gauge perceptions of the service from a range of viewpoints.

### **Methods**

A retrospective chart audit was performed over a four week period of all attendances at an ENT casualty department documenting source, history and treatment of patients. A single investigator judged appropriateness of attendances. Findings were presented and a change from open access to an appointed rapid access system proposed. Regional medical staff, outpatient nurses, general practitioners and patients were surveyed.

### **Results**

An average of 17 patients attended the department every morning waiting on average 75 minutes for assessment. 63% of patients lived within the geographical boundaries of the Trust. Self referral rate was 45%, 15% of patients had a planned review. The most common reason for attendance was otitis externa, followed by epistaxis, nasal injury and foreign bodies. 18% of patients had symptoms for greater than 4 weeks. Overall only 39% of attendances were deemed to be appropriate. A majority of medical and nursing staff surveyed felt the service should no longer continue in its current form and supported change to an appointed rapid access clinic. General practitioners would prefer patients to be seen at their local hospital. Patients are generally satisfied with the current service.

### **Conclusions**

The ENT casualty offers an invaluable service, however as an open access facility it overburdened and open to misuse. Proposed changes to an appointed rapid access clinic are widely supported.

5.14 - 5.22 pm

## **Latex and Silicone Contamination of Surgical Wounds**

PR Bell, BP McNicholl

### Objective

To determine the extent of latex and silicone contamination of surgical wounds.

### Methods

Needle contamination was incidentally found while studying needle blunting. In this study a variety of suture needles were examined by light microscopy. Contaminants were sent for electron microscopy and probe analysis. Needles were also passed through pig skin and synthetic membranes and samples taken for histology. Samples of human tissue, after suturing were also studied for contaminants. These samples were from repeat melanoma excisions. Needles were also studied before and after handling with latex gloves to estimate transfer of glove material.

### Results

Electron Microscopy and probe analysis confirmed silicone to be present on suture needles taken directly from sterile packaging. Histology of pig and human tissue demonstrated silicone within the tissue with an associated foreign body reaction. Latex particulates were found both on suture needles and in the tissue specimens following handling with latex surgical gloves.

### Conclusions

Silicone is present in skin after suturing and causes a foreign body reaction. Handling suture needles with latex gloves leads to deposition of glove material onto suture needles. This is subsequently removed when passed through animal tissue during suturing and is deposited into the tissue. Contamination of surgical wounds with latex and silicone may lead to increased scarring, granuloma formation and potential allergy. This is particularly relevant in reconstructive head and neck surgery where free flaps are used or with ventilator tube insertion where contaminants may potentially result in flap failure or increased scarring of the tympanic membrane.

5.22 - 5.30 pm

## **Cuts, Cuts and More Cuts!**

Harris R, Olding J, Olding C, Lacey C (A and E lead),  
Gurling R (Radiology lead) and Bentley R (Maxillofacial lead),  
Baskeville P (Vascular lead), Oakley R (ENT lead)

### Objective

In 1987 King's College Hospital, (KCH) London published its experience of managing 20 penetrating injuries (PI's) of the head and neck over the preceding 3 years. Police

recorded 277 fatal stabbings in England and Wales in 2008, and 86 in London alone, the latter showing a 25% increase on 2007. On April 1st 2010, KCH became the level 1 trauma centre for South East London. We examine data for PI's over a 5 month period.

### Methods

Demographic data and a record of the injuries sustained are collected by the trauma team co-ordinator and presented at the daily multi-disciplinary trauma meeting. These data have been supplemented by a medical records review to determine treatment modality and patient outcomes.

### Results

In the first 3 months, 13 patients with PNI's have been treated. Mean age was 27 with a predominance of 12 males to 1 female. 10 patients were managed conservatively, and 3 patients underwent surgical neck exploration. Negative exploration rate was 66%. No true correlation was observed between anatomical neck zone or clinical signs and mode of radiographic investigation chosen.

### Conclusion

Our initial experience suggests the South East London trauma centre will see in excess of 150 PNI's over the next 3 years, a dramatic increase (780%) on the number previously reported on between 1984 and 1987. Management of penetrating neck injuries remain controversial and there is no consensus view as to the perfect care pathway. We describe our initial experience and the impact of resources on our management algorithm.

**Saturday 9<sup>th</sup> October 2010**

**HEAD AND NECK SESSION - 9.00 - 11.00 am**

9.00 - 9.08 am

**Vocal Cord Augmentation - New Methods**

W Hasan, D Leonard, D Charles, J Russell

**Objectives**

To assess the rate of early and late complications, voice quality, treatment outcomes and methods of vocal cord augmentation.

**Methods**

A retro - prospective study of all patients undergoing vocal cord augmentation between 1996 - 2010.

**Setting**

Otolaryngology tertiary referral centre.

**Participants**

10 procedures performed in 8 patients.

**Main outcome measures**

Therapy Outcome Measures (TOMs) score, post - operative complications, remission and cure rates.

**Results**

8 (62.5%) patients were males and 2 (37.5 %) females. The mean age at first procedure in this study was 51.5 years (range 22-81). All patients had unilateral vocal cord palsy; 75% were right sided and 25% left sided.

30% of procedures were performed under local anaesthesia and 60% under general anaesthesia. In one case an attempted sedation and fibroptic guided procedure had to be converted into general anaesthesia due to patient's intolerance. 70% of procedures involved Hydroxyapatite injection, 20% fat injection and 10% Teflon injection. The mean value of the amount of augmentation substance injected was 0.45 mls (0.3 - 0.6mls). All patients had good outcome and voice quality. The mean TOMs score post operatively was 4 (range 3 - 5). One patient required two further re-augmentation at a later stage. There were no immediate post-operative airway complications. All patients were discharged within 24hrs of admission. One patient died within 24 hours of the procedure of unrelated cause.



## Conclusion

Vocal cord injection with hydroxyapatite under sedation and fiberoptic guidance is a safe, easy and effective method for vocal cord augmentation.

9.08 - 9.16 am

## **The Assessment of Sestamibi Imaging in the Localization of Parathyroid Disease**

Mr Tom Moran, Prof Con Timon

### Introduction

Primary hyperparathyroidism is a common condition due to either a parathyroid adenoma or, less commonly, parathyroid hyperplasia. Tc-99 Sestamibi and ultrasound imaging are commonly used modalities in the investigation of the hyperfunctioning parathyroid.

### Aim

To assess the accuracy and usefulness of Tc-99 Sestamibi imaging in the localization and treatment of parathyroid disease.

### Materials and Methods

This is a retrospective evaluation of patients with primary hyperparathyroidism. Each patient underwent Tc-99m Sestamibi imaging and directed exploration performed by a single surgeon at an academic tertiary referral hospital over a four-year period.

### Results

The true positive rate of Sestamibi scans was found to be 66%. Thus, in 44% of cases, the scan was not an aid to the surgeon.

### Conclusion

Although Sestamibi imaging can help to localize disease and distinguish hyperplasia from adenomatous disease, there is a significant inconsistency between the scan and the intraoperative findings. Thus although an aid to the surgeon, it is surgical expertise which is paramount in localizing and treating parathyroid disease.

9.16 - 9.24 am

## **Day Case Tonsillectomy - The Tallaght Experience**

J Kulasegarah, N Murphy, G Fitzgerald, D McShane

### Objective

Tonsillectomy is the commonest ENT operation that has traditionally required overnight stay. Due to the reduction of in-patient beds and expansion of the surgical day unit, there has been significant pressure to perform more procedures as day

cases. The Adelaide and Meath Hospital Dublin has been performing adult day case tonsillectomy since 2006.

### Methods

Retrospective review of patients' charts admitted to the day ward for tonsillectomy from 2006 to 2010 was performed.

### Results

100 consecutive tonsillectomies were performed in the surgical day unit during the period under review. The female to male ratio was 7:2 with mean age of 22.6. Mean distance travelled was 17.1km. We had a primary haemorrhage rate of 1% and secondary haemorrhage rate of 3% of patients that required returning to theatre. Readmission rate for pain control was 6.4%. The overall readmission rate within the first 24hours was 2.1%.

### Conclusion

Considering the low bleeding and complication rates, tonsillectomy can be performed safely in a selected group of patients as day case surgery.

9.24 - 9.32 am

### **Is the Higher Post Op Bleeding Rate Inherent in Coblation Tonsillectomy?**

Khan I, Abelardo E, Menakaya O, Jaramillo M, Mahmood K

### Objective

The advantage of coblation tonsillectomy over other techniques have been well reported, specifically the lower early phase post-operative pain and the ease of the procedure itself. However, UK-wide national audit of tonsillectomy showed that the coblation-assisted approach has at least twice post-operative bleeding rate compared to the conventional cold-steel technique. In this study, we wanted to know if the high bleeding rate is inherent in coblation tonsillectomy itself by comparing the single surgeon's own complication rates to remove surgeon bias.

### Methodology

We performed a retrospective study on patients who underwent tonsillectomy at West Wales General Hospital (WWGH) performed by a single surgeon from 2006 to 2010 employing both cold steel and coblation tonsillectomies.(Statistical Tool SPSS 18).

### Results

The nominated surgeon performed 239 tonsillectomies at WWGH from 2006 to 2010. 119 patients underwent cold steel dissection (group I) and 120 had coblation tonsillectomy (group II). There was no demographic difference between the two

groups. There was no statistical difference in the length of hospital stay between the two groups (1.09 days vs 1.05 days). As for the post-operative bleeding, 5.0% were noted in the cold steel group while 5.8% in coblation group (p=1.00). The return to theatre rate for cold steel dissection was 2.52% and for coblation surgery 2.50% (p=1.00).

#### Conclusion

There was no statistical difference in the over-all post-operative bleeding between those who had cold steel dissection and coblation tonsillectomies. These data suggest that higher post-operative haemorrhage is not inherent in coblation tonsillectomy.

9.32 - 9.40 am

#### **Thyroid Nodules: Incidence of Malignancy and Interpretation of Fine-Needle Aspiration for the Clinician**

M Sadadcharam, M Murphy, A Tuthill, P Sheahan

#### Objective

Thyroid nodules are a common clinical problem. Epidemiologic studies have shown the prevalence of palpable thyroid nodules to be approximately 5% in women. In contrast, high-resolution ultrasound can detect thyroid nodules in 19%-67% of randomly selected individuals with higher frequencies in women and the elderly. The clinical importance of thyroid nodules rests with the need to exclude thyroid cancer that occurs in 5%-10% of cases. Fine needle aspiration (FNA) is the most accurate and cost effective method for evaluating thyroid nodules, with sensitivity and specificity levels reported at 93% and 96% respectively. However, the procedure is associated with a false negative rate of approximately 5%. Our aim in this review was to assess the incidence of histologically-confirmed malignancy in thyroid nodules and to review the efficacy of FNA in the pre-operative diagnosis larger nodules.

#### Methods

Ninety-eight patients with thyroid nodules who underwent FNA and surgery over an 18 month period were analyzed. The incidence of histologically-confirmed malignancy in small (<4cm) and large (>4cm) nodules was assessed and compared to their respective pre-operative FNA reports.

#### Results

Thirty-three patients had nodules >4cm. Of this subset, 30.3% were found to have histologically-confirmed malignancy. FNA was found not to be helpful in establishing a pre-operative diagnosis in these cases, with only 5 cases having a pre-operative Thy classification of 4/5.

## Conclusion

Based on our experience, we have found a 30.3% incidence of malignancy in thyroid nodules >4cm and would therefore recommend that these cases be managed surgically.

9.40 - 9.48

## **The Role of Bfgf in Head and Neck Cancer**

B Fennessy, J Woolley, P O'Sullivan, T Cotter

### Objective

Basic fibroblast growth factor (bFGF) is a pro-angiogenic and lymphogenic protein that plays an important role in several types of malignancies. The role of bFGF in head and neck cancer cell survival remains ill defined. Its effects may be mediated via the production of reactive oxygen species (ROS) by NADPH oxidase (NOX) or cyclooxygenase (COX). The aim of this study was to examine the expression of bFGF in head and neck cancer cell lines, and to identify the mechanisms by which it facilitates tumour development.

### Methods

The effects of bFGF were examined in three cell line models of squamous cell carcinomas: KYSE 450 (oesophageal), FaDu (pharyngeal) and HeLa (cervical). A combination of immunohistochemical, pharmacological and biochemical analysis were undertaken to determine a role for FGF in tumour development.

### Results

All cell lines examined produce high levels of endogenous bFGF and fibroblast growth factor receptors (FGFR) 1 and 3. Blocking FGFR1/3 leads to tumour cell detachment and increased cell death via apoptosis. The pro-survival pathways of bFGF were surprisingly not acting via the production of ROS from one of the NOX or COX family of proteins, even though such proteins have been shown to be involved in promoting other types of tumour cell survival.

### Conclusions

bFGF is expressed in certain head and neck cancers, but appears to mediate its effects by a means independent of ROS production. Significantly, blocking FGFR1/3 mediates a pro-apoptotic response, suggesting that FGF may be a potential target for chemotherapy.

9.48 - 9.56 am

## **Evaluating Outcomes in Lateral Temporal Bone Resection**

O'Connor A, Toner M, Kinsella J, Timon C

## Objective

To evaluate the survival outcomes for patients who underwent a lateral temporal bone resection in metastatic cutaneous head and neck malignancies

## Method

A single institute study retrospective chart review was carried out for patients who underwent a lateral temporal bone resection for malignancies between 2000 and 2010. The Pittsburgh staging system was used to determine tumour classification. Patient demographics, surgical procedure, tumour histology, treatment course and clinical outcomes were recorded. Overall and disease free survival was calculated.

## Results

47 patients were identified who underwent a lateral temporal bone resection. Mean age of 75.5 years. Mean follow up was 24 months. 53.2% presented with recurrences at the site of previous surgical; resection. 74.5% had Stage IV disease. 85.2% had SCC, 10.6% had BCC and salivary carcinoma 4.2%. 87.2% had a parotidectomy, 93.6% had a neck dissection of which 51% had nodal involvement. 44.7% had surgery only, 53.2% had adjuvant radiotherapy. The overall complication rate was 6.3%. Five year overall survival was 28% and Disease free survival was 24%.

## Conclusion

Lateral temporal bone resection is associated with a poor prognosis and high incidence of recurrence. A high incidence of recurrence is noted at sites of previous surgical resection.

9.56 - 10.04 am

## **Unilateral Vocal Cord Paralysis in the Presence of Thyroid Disease: Pathopneumonic for Malignancy?**

F O'Duffy, C I Timon

## Objective

To examine the aetiology of vocal cord paralysis in thyroid disease. The presentation of vocal cord palsy with associated goitre is still widely considered to be due to malignancy with recurrent laryngeal nerve (RLN) involvement. Peripheral lesions injuring the vagus nerve and its branches are responsible for the vast majority of vocal cord paralysis. Aetiologies include iatrogenic, malignancy, neck trauma and idiopathic. The literature reports vocal cord paralysis secondary to neoplastic process at rates between 12-38% with thyroid disease accounting for 5-10% of these.

In keeping with current dogma there is little discussion on the rate of benign thyroid disease causing vocal cord paralysis. The literature contains 70 cases of vocal cord paralysis secondary to benign thyroid disease.

## Methods

We retrospectively examined 830 consecutive patients who underwent thyroid surgery performed by the senior author between March 2002 and March 2010.

## Results

Fourteen cases of preoperative vocal cord paralysis with thyroid mass were identified. There was a 6:8 female to male ratio. Of the 14 cases 8 had previous thyroid surgery. The aetiology of RLN paralysis in this series was benign: 6 cases, iatrogenic: 5 and malignancy: 3 cases.

## Conclusion

These findings suggest that current thinking and indeed literature under estimate the association of vocal cord paralysis in benign thyroid disease. RLN paralysis in the presence of a goitre should not be presumed to be due to malignancy. Furthermore this highlights the importance of identification and preservation of the RLN in patients who present with palsy and a goitre, relief of benign compression often leads to complete recovery of vocal cord paralysis.

10.04 - 10.12 am

## **A Ten Year Experience of Intralesional Cidofovir Use for Laryngeal Papillomatosis: A Safe and Effective Treatment for this Disease.**

LM Devlin, M Moran, B Devlin, WJ Primrose

## Objectives

To assess the safety and effectiveness of intralesional cidofovir injections for laryngeal papillomatosis, especially in regard to the risk of the carcinogenesis with the use of this agent.

## Methods

Retrospective review of case notes was carried out for a tertiary ENT surgery referral centre from the year 2000 until 2010. All patients with a diagnosis of upper aerodigestive tract squamous papilloma were reviewed and subsequently all patients who had been treated with intralesional cidofovir were selected. Basic demographic data was recorded for these patients, as well as the timing and doses of cidofovir delivered. In cases where multiple treatments were administered, the frequency of these was noted. Notes were also reviewed for evidence of cidofovir related adverse drug reactions, such as renal impairment .

## Results

Between the years 2000 and 2010, thirty patients received intralesional cidofovir, of whom twenty-six were male and four female. The number of treatments varied from 1

to 32. In all of these cases there were no cases of malignant transformation from squamous papilloma to carcinoma, and there were no adverse drug reactions.

### Conclusions

This study demonstrates that intralesional cidofovir represents a safe and effective treatment choice for the management of patients with laryngeal papillomatosis. Although the carcinogenic potential of this agent has been reported in animal studies, no cases of malignant transformation were identified in the thirty patients studied.

10.12 - 10.20 am

### **Surgical Management of Parotid Gland Pathology: A Ten Year Review**

JC Oosthuizen, C Timon, AJ Curran

### Objective

The objective of the study was to review the surgical management of parotid pathology with specific focus on: complications encountered, recurrence rate and the correlation between fine needle aspiration cytology (FNAC) and histopathologic results.

### Methods

A ten year (1998-2007) retrospective medical record review of patients undergoing parotidectomy at the Royal Victoria Eye and Ear hospital.

### Results

The study included 101 patients that underwent a total of 105 parotidectomies. Of these 74 (70,4% ) had benign neoplasms, 18 (17,1%) malignant neoplasms and 13 (12,3%) inflammatory or lymphatic lesions. Superficial parotidectomy was performed in the majority (69,5%) of cases, total parotidectomy in (26,6%) and finally simple tumour enucleation (3,8%). Commonly encountered postoperative complications included transient facial nerve palsy (17,1%), permanent facial nerve palsy (4,7%), sialocele formation (5,7%), Frey syndrome (6,9%) and salivary fistula formation(4,7%). All cases of permanent facial nerve palsy occurred during surgery for malignant disease. Three cases (2,8%) of recurrence were recorded, all of which occurred in patients with malignant disease. FNAC was performed in 82 (78%) cases with an accuracy of 62% and sensitivity of 68%.

### Conclusions

The relatively low accuracy rate of FNAC, demonstrated by this series, brings the use of routine FNAC in parotid pathology into question. Furthermore the incidence of facial nerve palsy as well as Frey syndrome appears to be dependent on the extent of surgical exploration, significantly higher rates observed in the total parotidectomy group.

10.20 - 10.28 am

### **The Impact of The Harmonic Scalpel On Hypocalcaemia After Total Thyroidectomy**

C Jackson, A McGreevy, B Hanna, E McNaboe, G McBride

#### Objective

The adoption of the harmonic scalpel for all thyroidectomies by two surgeons in two centres in Northern Ireland has afforded the opportunity of comparing the current incidence of hypocalcaemia with an historical cohort to determine if the introduction of the harmonic scalpel has altered this complication rate.

#### Methods

Retrospective chart review of patients from 2005-07 and 2009-10, before and after the introduction of the harmonic scalpel. The groups were identified using the theatre logbook and charts tracked through the PAS system. A corrected calcium level of 2.0 was used to define hypocalcaemia

#### Results

The rate of hypocalcaemia in 2005-7 was 26% and in 2009-2010 was 43%( $P<0.001$ ).

#### Conclusion

Previous literature reports concerning complications of thyroidectomy with the harmonic scalpel suggest either no effect or a decrease in complications. This study suggests that hypocalcaemia may increase in frequency although we have yet to determine if this could be a learning curve phenomenon.

10.28 - 10.36 am

### **Fine Needle Aspiration Cytology and Histopathology in a Regional Head & Neck Centre - Diagnostic Accuracy and Clinical Impact**

Basheeth N, McCarthy A, Smyth D, Skinner L, Murphy M, Donnelly M

#### Objectives

Fine needle aspiration cytology has been a useful diagnostic tool in head and neck pathology. In this study we compared the cytology and histopathology results of all head and neck patients who presented to our Regional center in the last four years. Impact of results and strategies to improve services in FNAC based head and neck clinics are suggested.

#### Materials and methods



A systematic review of FNAC and Histopathology results in patients presenting with head and neck masses from 2006-2009 was done using pathology database in our Regional head and Neck center. A retrospective chart review was performed. Clinical and histopathological data were collected. We analysed the efficacy of cytology and histology findings and studied its clinical correlation.

### Results

Of the total 151 ENT referrals, 97 patients had both cytology and histology. Neck mass (45.7%) and parotid (39%) were the most common head and neck presentation for cytology referral. Sensitivity, Specificity, PPV, NPV, ROC were 95.4%, 70%, 96.5%, 63.6%, 0.82 and  $p < 0.01$ . The PPV and Sensitivity for Neck mass sample were 97.4% and 90.5%. Parotid samples showed 94.4% and 80%, PPV and sensitivity respectively.

## Conclusion

FNAC is an effective and reliable tool in the diagnosis of head and neck pathology. It helps in aiding the evaluation of tumour, non-neoplastic inflammatory conditions involving neck mass & parotid swelling with good predictive value.

10.36 - 10.44 am

## **The Accuracy of HiPe With Regards The Recording of Tracheostomies**

R Kealy, P. Lennon, NP Shine, JP Hughes, JE Fenton

### Objective

Tracheostomy is a relatively common procedure often performed on complicated patients with multisystem illness. These patients are usually in a high dependency or intensive care situation and result in significant costs to the local health service. Government funding of hospitals is partly predicated on the complexity of care and procedures performed in that individual institution. Tracheostomy therefore has an economic value and it is of considerable importance that the operation is captured by the hospital data system. As with any procedure carried out in Irish hospitals, the operation should be recorded by the Hospital in-patient enquiry (HIPE) system. The aim of this study was to determine the accuracy of such data retrieval with regard to tracheostomy by comparing the surgical and I.C.U information with the Hospital Inpatient Enquiry System (HIPE).

### Methods

A retrospective analysis was performed of all theatres in the Mid-Western Regional Hospital, Limerick inclusive, of the Surgical Registers and I.C.U daily log book to identify the number of tracheostomies performed from 1st July 2009 to the 31st June 2010. This was then cross referenced with the HIPE data recording of tracheostomies for this time period.

### Results

Between 1st July 2009 and 31st June 2010 a total of 43 patients had a tracheostomy performed. Surgical tracheostomies accounted for 21, and there were 22 percutaneous tracheostomies. Fifteen tracheostomies were recorded by the HIPE system.

### Conclusions

Improved techniques are required to prevent the discrepancy between the HIPE data and tracheostomy procedures.

10.44 - 10.52 am

## **ENT Trainees Experience with Local and Regional Flap Reconstruction**

P Lennon, N Shine

### **Objective**

Local and regional flap reconstruction of defects in the head and neck is a core skill in the Head & Neck surgeon's repertoire. The aim of this study was to review the loco-regional flaps used by the senior author and assess the experience and perceived adequacy of training in Otolaryngology.

### **Methods**

A prospective database was reviewed over one year (September 2009 to 2010). Patients undergoing reconstructive surgery were included in the study. Data recorded included site of defect and flap employed. A telephone survey was carried out of ENT trainees (n=23) regarding their experience the recorded flaps utilized by the senior author, perceived adequacy of training and dedicated flap training undertaken.

### **Results**

84 flaps were performed on 59 patients. The response rate was 18/23 surgical trainees (78.2%). 1/18 trainees felt that training in this area was adequate (5.5%). There was no difference in the perceived adequacy of training between junior HSTs (years 1 to 3) and Senior HSTs (years 4 to 6) ( $p=1$ , Fisher's exact test two tailed). Trainee perception for the need for Fellowship training in this area reduced from 72.4% (7/9) in junior HSTs to 44.5% (4/9) in senior HSTs (not significant). A trend, though not statistically significant, was noted in reduced need for fellowship training with increased exposure to training courses ( $p=0.06$ , Fisher's exact test).

### **Conclusions**

Higher surgical trainees exposure in reconstructive techniques is inadequate to prepare them for defects encountered in practice. Mandatory attendance at the national flap reconstructive course may partially address this deficiency.

10.52 - 11.00am

## **Endoscopic Resection of Sinusoidal Tumour: The Role of Radiofrequency Coblation**

R A O'Connell, I Keogh, J Lang

### **Introduction/Objective**

Radio-frequency coblation has been increasingly used throughout Otorhinolaryngology. Tissues are removed by vaporization, achieved through the production of an ionized plasma vapour. The depth of vaporisation is very limited and is achieved with virtually no heat production, resulting in minimal thermal damage to adjacent tissue.

## Methods/ Results

We present 2 selected cases (video presentation), where patients with vascular tumours (nasopharyngeal angiofibroma and leiomyosarcoma) confined to the nasal cavity, nasopharynx and paranasal sinuses (with no evidence of intracranial extension) undergoing coblator-assisted endoscopic resections. Both patients underwent successful pre-operative embolization followed by coblator-assisted endoscopic resection of the tumour.

## Conclusion

Endoscopic-assisted radiofrequency coblation of sinunasal tumours has given us promising results especially in resecting tumour that is confined to the nasal cavity, nasopharynx and paranasal sinus. We believe this presentation justifies further evaluation of this interesting technique in resection of vascular sinunasal tumours.

## POSTER SESSION

### **Day Case Pediatric Tonsillectomy - A Feasibility Study**

TJ Rao, S Gallagher, R Darling, JG Toner

Objective: Evaluate current tonsillectomy service to determine the proportion of our patients meeting inclusion and discharge criteria to establish feasibility of offering day case surgery.

### **Safeguarding Medical Literature**

Colleen Heffernan; Prof J Fenton

There are multiple mediums to publish research. Within the medical profession the importance of publishing regularly is stressed. As numbers of publications increase is there a risk that ethical breaches will increase? Liz Wager ET al1 composed a questionnaire on this topic and forwarded it to the editors in chief of one publishing house. Based on their conclusions we replicated the study with editors in chief of otolaryngology related journals.

### **A Mature Teratoma of Neck**

Shakeel M, Khan I, Duff Leanne, Hussain A

To raise awareness about teratomas presenting as a painless neck lump.  
To discuss the management of this condition.

## **The Changing Face of Informed Surgical Consent**

JC Oosthuizen, P Burns, C Timon

### **Objective**

Due to its medico-legal implications as well as its central role in the doctor patient relationship, informed surgical consent has often been viewed as a highly contentious and even controversial issue. The authors' objectives were to determine whether information brochures improve patients' preoperative knowledge, to determine the amount of information expected and finally to determine whether the recently proposed request for treatment (RFT) consenting method is viable on a large scale.

## **Polydioxanone (Pds) Foil in Extracorporeal External Approach Augmentation Septo-Rhinoplasty**

T Al Sindi, D Smyth, M Shandilya

To evaluate the role of polydioxanone foil (0.15 mm) Scaffolds in Augmentation Rhinoplasty.

## **Forgotten T-tube in the middle ear**

M Shakeel, A Trinidad, I Khan, K W Ah-See

Retention within the middle ear cleft is an unusual complication of T-tube insertion. To raise awareness of this complication, we would like to present this case report. Methods: Case report with literature review.

7.00 pm      *The Wilde Discourse Dr Fred D. Owens MD*

## **'Witness to the Evolution of Otology: My Otological Journey 1966-2010'**

### **Abstract:**

The evolution of Otology was accomplished through advances in education; technology; anaesthesia; and medicine in general. I was privileged to experience the evolution of Otology from 1966 until the present time. Physicians, engineers and industry providers from throughout the world participated in these advances for the treatment available to the Otologic patients.

I was privileged to personally know many of these physicians, engineers and industry providers in this era.

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