

CURRICULUM VITAE

PETER MUGWE

Address: P.O. Box 72306

Tel: 254 20 2345005

Cell: 254 722 513 778

Email: drmugwep@yahoo.com

drmugwep@gmail.com

Date of Birth: 24th August 1958

Marital Status: Married

EDUCATION

1987–1991 University of Nairobi
Masters of Surgery in Ear, Nose, Throat, Head and Neck surgery

1979–1985 University of Nairobi
Bachelor of Medicine and Bachelor of Surgery

1977–1978 Nairobi School (A-Level)

1973–1976 Nairobi School (O-Level)

OTHER QUALIFICATIONS

2004

Fellow of the College of Surgeons of East and Central Africa

CAREER EXPERIENCE PROGRESSION

1997–Date University of Nairobi
Senior Lecturer, Department of Surgery

1991–1997 University of Nairobi
Lecturer, Department of Surgery

1988–1991 ENT Department, Kenyatta National Hospital
Senior House Officer/Registrar

1987–mid 1988 Samburu District
Medical Officer of Health
Also in charge of Maralal District Hospital.

1986–1987 Maralal District Hospital
Medical Officer

1985–1986 Provincial General Hospital, Nyeri
Medical Officer (Intern)

CURRENT RESEARCH INTERESTS

1. Suppurative Otitis Media and Hearing Impairment
-Ongoing study on Bacteriology and Drug sensitivity pattern of CSOM at a Refugee camp in Kenya
2. Rhinosinusitis

POSTIONS OF RESPONSIBILITY & LEADERSHIP

1. External Examiner in ENT Surgery, Makerere University School of Public Health, Kampala, Uganda July 2018
2. External Examiner in ENT Surgery, Makerere University School of Public Health, Kampala, Uganda July 2017
3. Thematic Head ENT Section, Department of Surgery May 2010 – 2015
4. External Examiner in ENT Surgery, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania August 2013- 2015
5. Coordinator of ENT clinical teaching of Undergraduate Medical Students, Department of Surgery
6. External Examiner in ENT Surgery, Tumaini University, Kilimanjaro Christian College (KCMC), Tanzania August 2007
7. Member of the Advisory Board of Executive Healthcare Management Program (formerly Advanced Healthcare Management Program), Strathmore Business School
8. Member of UNIHANS Strategic Committee for the development of the institute
9. Chairman, Medical Advisory Committee, Gertrude's Children Hospital 2008 – 2014
10. Member of Medical Advisory Committee Gertrude's Children Hospital, 2004 – 2014
11. Member of the Accreditation Committee, Aga Khan University Hospital, 2008 – 2014
12. Chairman, Division of Surgery, Gertrude's Children Hospital,
13. 2004 – 2008
14. Member , Medical Advisory Committee, Mater Hospital, 1995 – 2000
15. Chairman, Kenya Ear Nose and Throat Society, 1999 – 2001

16. Vice Chairman, Kenya Ear Nose and Throat Society, 1997 – 1999
17. Member of Otolaryngology Head and Neck Surgery Institute (OHNSI): *OHNSI is an interuniversity global organization whose activities include post specialization, training, exchange programs, research and design of surgical equipment.*
18. Chief Resident, Department of ENT Kenyatta National Hospital 1989 – 1999

COURSES AND CLINICAL ATTACHMENTS

1. Guildford Sinus and Skull-Base Surgery Course, University Of Surrey, London, 17th-19th June 2015.
2. Facilitated 6th Advanced Trauma Life Support Course, Kenyatta National Hospital, Nairobi February 2014
3. Singapore, 2nd Sleep Surgery Course, March 2008.
4. Trans-Nasal Endoscopy Workshop, Singapore, 2008.
5. OHNSI Course on Endoscopy Sinus Surgery, University of Nairobi and Karen Hospital, 2008.
6. 20th Advanced International Course on Laser Surgery in ENT at University Hospital Mont Godinne, Belgium, May 2007.
7. Course on Perioperative Management at Getrude's Paediatric Nursing Training School, 2007.
8. OHNSI Endoscopy Sinus Surgery Course, Aga Khan Hospital, Mombasa 2006.
9. Attended the 6th International Training course on Endoscopic and Mucoscopic sinus surgery, Philip University, Marbug, Germany 2005
10. Attended 9th International LASER course on Otorhinolaryngology Head and Neck surgery, Philip University, Marbug, Germany, 2005.
11. Attended 17th International Functional corrective NASAL Surgery (Aesthetic), University Hospital UTRECHT, Netherlands, 1999.
12. Attended 6th Functional Endoscopic surgery workshop, PD Hiduja National Hospital and Medical Research Centre, Mumbai, India, 1996
13. A six week study tour to Manchester University School of Audiology and Education for the deaf and speech pathology. Sponsored by ODA through Academic link between our university and Manchester University, Oct – Nov 1996.
14. One month study tour in Britain organized by the Hearing

Research group of Liverpool School of Tropical Medicine, with Financial Support from the British Council, May 1993.

15. One week workshop on temporal bone surgery at Kenyatta National Hospital, March 1993.
16. Course in temporal bone surgery, Seith G. S. College, KEM Hospital, Mumbai, India, September 1991.
17. Course in Neurotology, Seith G. S. College, KEM Hospital, Mumbai, India, September 1991.

CONFERENCES, SYMPOSIA AND WORKSHOPS ATTENDED

1991 - 2019

- Annual Scientific KENTS meetings

2017

- AAO-HNSF 2017 Annual meeting & OTO Experience, Chicago IL

2017

- American Rhinologic Society 63rd Annual meeting, Chicago IL

2016

- All Africa ENT & Audiology Congress, Kigali, Rwanda

2015

- Peadiatric Otolaryngology Symposium, Nairobi, Kenya

2014

- Investigating allergic effects of environmental exposures, Brindisi, Italy

2013

- American Academy of Otorhinolaryngology Head and Neck Surgery, Vancouver, Canada

2013

- European Academy of Allergy and Clinical Immunology Congress, Geneva, Switzerland

2011

- Otology workshop, Ear Drop Kenya, Nairobi

2010

- Rhinology Symposium by the Kenya Society of Rhinology, Nairobi, Kenya

2009

- Otology workshop, Ear Drop Kenya, Nairobi

UNIHANS Strategic Workshops

2007

- Annual Meeting and Oto Expo of American Academy of Otolaryngology in Washington D. C., USA.
- 2001
- 22nd International Congress of Chemotherapy at Amsterdam, Netherlands.
- 2000
- International Rhinological Society, The Nose 2000 and beyond, Washington D. C, USA.
 - American Academy of Otorhinolaryngology Head and Neck surgery, Washington D. C., USA.
- 1995
- 25th Halpike Symposium, Hearing Aids: The technological revolution, University of Manchester.
 - 3rd British Facial and Audiological implant Group Scientific Conference, Manchester Royal Infirmary.

SCIENTIFIC PAPERS PRESENTED AT CONFERENCES/ WORKSHOPS

1. *Laryngeal Papilloma in Children*, presented at the Paediatric Otolaryngology Symposium. Hosted by Kenya Ear Nose Throat Society at Mayfair Hotel Westlands, Nairobi 2015.
2. *Trauma in Ear, Nose, Throat, Head & Neck Surgery* presented at the *Advanced Trauma Life Support (ATLS)* course. Hosted by Department of Orthopedic University of Nairobi, Kenya Orthopedic Association, Kenyatta National Hospital & UoN College of Health Sciences at KNH, Nairobi 2015.
3. *Investigation and Management of Upper Airways Allergy* at the University of Nairobi School of Medicine Allergy and Asthma Course. Hosted by Department of Paediatrics & child Health College of Health Sciences at KNH, January 2015.
4. *Trauma in Ear, Nose, Throat, Head & Neck Surgery* presented at the *Advanced Trauma Life Support (ATLS)* course. Hosted by Department of Orthopedic University of Nairobi, Kenya Orthopedic Association, Kenyatta National Hospital & UoN College of Health Sciences at KNH Nairobi 2011, 2012, 2013.
5. *Technological Advances in Otolaryngology: presented as the Keynote Address KENTS Meeting*. Hosted by Kenya Ear Nose Throat Society at Hotel Cathy Nakuru, 2010.
6. *Clinical Presentation of Sinusitis* presented OHNS course. Hosted by OHNS, UoN, University of Marburg & Agakhan Hospital Mombasa at the White sands hotel & Agakhan Hospital Mombasa, 2006.
7. *Rhinosinusitis: Clinical presentation and management*, Annual

- KENTS. Hosted by Kenya Ear Nose Throat Society at Nakuru, 2004.
8. *National Survey on Prevention of Deafness in children in Kenya*, presented at Pan-African Association of Otolaryngological Association meeting (PAFOS). Hosted by Kenya Ear Nose Throat Society & PAFOS at the Kenyatta International Convention Center Nairobi, 1998.
 9. *Pattern of Indication for Elective Operation at the Kenyatta National Hospital*. Hosted by Kenya Ear Nose Throat Society at The Agakhan Hospital Nairobi, 1993.
 10. *Management of Head and Neck tumors prior to admission to the Kenyatta National Hospital*. Hosted by Kenya Aer Nose throat Society at The Agakhan Hospital Nairobi, 1993.
 11. *Congenital absence of the nose: A case report at the Kenyatta National Hospital*. Hosted by Kenya Ear Nose Throat Society at The Agakhan Hospital Nairobi, 1992.
 12. *Carcinoma of the Paranasal Sinuses at the Kenyatta National Hospital*, a paper presented at the proceedings of the first annual KENTS conference. Hosted by Kenya Ear Nose Throat Society at The Agakhan Hospital Nairobi, April 1991.

PUBLICATIONS IN JOURNALS

PUBLISHED AFTER LAST PROMOTION

1. *Muthoka MG, **Mugwe P**, Yuko- Jowi CA, Ayugi J, The effects of adenotomylectomy on pulmonary pressures for children at a tertiary hospital in Kenya: A cross sectional study. East and Central Africa journal of Otolaryngology head and neck surgery 2018*
2. Peter Ochungo, **Peter Mugwe**, Wairimu Waweru, *Prevalence of H Pylori in tonsillar tissue of patients with adenotonsillar hypertrophy using Rapid Urease Test in a tertiary hospital in a sub Saharan country. Otolaryngology Online Journal. 2015; 5:2*
3. Ayugi John, Loyal Poonamjeet, **Mugwe Peter**, et al., *Demographic patterns of Acoustic Shock Syndrome as seen in a large call centre. Occupational Medicine & Health Affairs. 2015; 3:4*
4. Peter Ochungo, **Peter Mugwe**, *Bacteriological and Drug sensitivity patterns of chronic suppurative otitis media at a refugee camp in Sub Saharan Africa. Indian Journal of*

- Otolaryngology and Head & Neck Surgery. May 2015.
5. Peter Ochungo, **Mugwe P.**, Radia Kiran, *Mesenchymal Chondrosarcoma of the parotid*. Otolaryngology Online Journal. 2014; 4:4
 6. Peter Ochungo and **Mugwe P.**, *Prevalence of H Pylori in tonsillar tissue of patients with adenotonsillar hypertrophy using Rapid Urease Test in a tertiary hospital in a sub Saharan country*. Indian Journal of Otolaryngology and Head & Neck Surgery. August 2014
 7. **P. Mugwe** , K. J. Kamau, O. K. Nyambaka, *Knowledge, Attitude and Practice in First Aid Management of Epistaxis by Accident and Emergency Clinical Staff at Kenyatta National Hospital*. East and Central African Journal of Surgery. March/April 2014; 19:17-22.
 8. B. K. Mukara, **P. Mugwe**, *Mucociliary Clearance Time in Patients with and without Rhinitis at Kenyatta National Hospital*. East and Central African Journal of Surgery. March/April 2014; 19:30-34
 9. Dicken SOA, **Mugwe P**, Aduda DS, et al., *Bacteriology of chronic suppurative otitis media (CSOM) in children in Garissa district, Kenya*. Int. Journal of Paediatric Otorhinolaryngology July 2013; 77:1107-1111.
 10. H.O. Oburra, Z.W. Ngumi, **P. Mugwe** et al., *Bronchoscopy for removal of Aspirated Tracheobronchial Foreign Bodies at Kenyatta National Hospital*. East and Central African Journal of Surgery March/April 2013; 18:50-59.
 11. S.M. Makau, B.A. Ongulo, **P. Mugwe**, *Pattern of Hearing in Patients on Anti-retroviral therapy at the Kenyatta National Hospital*. East Africa Medical Journal 2010; 7:18-21
 12. Carolyn Macfadyed, Carol Gamble, Paul Garner, Isaac Macharia, Ian Mackenzie, **Peter Mugwe**, Herbert Oburra, Kennedy Otworld, Stephen Taylor and Paula Williamson. *Topical quinolones vs antiseptic for treating chronic suppurative otitis media: A randomized controlled trial*. Tropical Med and International Health, 2005; 10: 190-197.
 13. Newton V. E, Macharia I., **Mugwe P.** et al., *Evaluation of the use of a questionnaire to detect hearing loss in Kenyan Pre – School Children*. International Journal of Pediatric Otorhinolaryngology 2001; 57: 229 – 234.
 14. J Hatcher, A. Smith, I. Mackenzie, S. Thompson, I. Bal, I. Macharia, **P. Mugwe**, C. Okoth Olende, H. Oburra, Z. Wanjohi, N. Achola, M. Mirza, A. Hart. *Randomized controlled trial treatment of chronic suppurative otitis media in school children in Kiambu district, Kenya*, lancet 1996; 1128-113.

PUBLISHED BEFORE LAST PROMOTION

15. J. Hatcher, A. Smith, I. Mackenzie, S. Thompson, I. Bal, I.

Macharia, **P. Mugwe**, C. Okoth Olende, H. Oburra, Z. Wanjohi, N. Achola, M. Mirza, A. Hart. *A Prevalence Study of Ear Problems in School Children in Kiambu District, Kenya*, May 1992, Int. Journal of Paediatric Otorhinolaryngology 1995; 33: 197 – 205.

16. **Mugwe P.**, Bal I.S., Oburah, Macharia I. *Management of head and neck tumors prior to admission to the Kenyatta National Hospital*. Proceedings of the 2nd annual conference of the Kenya Ear Nose and Throat Society (KENTS), 1993.
17. **Mugwe P.** *Pattern of indication for elective operations in the Kenyatta National Hospital*. Proceedings of the second annual scientific conference of KENTS, 1993.
18. **Mugwe P.** and Bal. I. S., *Congenital absence of the nose: A case report at the Kenyatta National Hospital*. Proceedings of the First Annual Scientific Conference of KENTS, 1992.
19. **Mugwe P.**, Inderjit Singh Bal and Obura Ouma, *Carcinoma of the paranasal sinuses: A ten year retrospective study at the Kenyatta National Hospital*. Proceedings of the First Annual Conference of KENTS, 1992.

PUBLICATION IN MANUSCRIPT/BOOK

20. Chege, **Mugwe, P.**, *A National Survey of Prevention of Deafness In Kenya*, published by the Bureau of Training and Consultancy (BTC), Kenyatta University, March 1988.

DISSERTATIONS SUPERVISED & COMPLETED

2018

Dr. Moses Mayenga

The prevalence of Helicobacter Pylori in patients presenting with Laryngopharyngeal reflux at Kenyatta National Hospital
Graduated in 2018 Degree of Masters in Medicine in Otorhinolaryngology, Head and Neck Surgery.

ABSTRACT

Main Objective: To find the prevalence of H pylori in LPR patients and to evaluate the relationship between H pylori infection and a number of demographic characteristics, alcohol consumption and cigarette smoking.

Study design and methodology: This was a prospective cross sectional stud. Patients presenting with LPR symptoms, with reflux symptom index (RSI) score of 13 or more were considered to have LPR and were recruited. Demographic and clinical data were collected and thereafter H pylori Antigen stool test was done on patients who consented. Data analysis was conducted using SPSS version 18.0

Results: Forty-six patients were found positive for H pylori stool antigen (prevalence of H pylori infection: 58%, 95% confidence interval). Alcohol consumption was associated with 80% lower odds of being positive for H pylori infection ($p=0.011$). smokers had significantly higher prevalence rate of H pylori infection ($p=0.011$) than non-smokers. Participants with tertiary level of education had lower prevalence secondary education ($p=0.001$) Age and sex were not significantly found to affect the prevalence ($p>.05$)

Conclusion and recommendation: There is a high rate of H pylori infection among patients with LPR at Kenyatta National Hospital. This is influenced by lifestyle behaviors such as smoking. Patients with high RSI score are highly likely to have H pylori infection. This group of patients should be tested and treated for the same. Preventive measures such health education on adverse effects of cigarette smoking should be put in place. Further controlled multicenter studies are necessary.

Supervisors

1. Dr. Peter Mugwe
MBChB(UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi
2. Dr. Catherine Irungu
Consultant Ent surgeon
Lecturer Department of Ent Head and Neck Surgery
University of Nairobi

2017

Dr. Stephen M. Ndambuki

Hypertension as a risk factor of hearing loss in patients attending the hypertensive clinic at the Kenyatta National Hospital

Graduated in 2017 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Main Objective: To determine the association between hearing loss and hypertension in patients on treatment for hypertension at the Kenyatta National Hospital.

Methods: Case control study with 51 hypertensive patients aged 45 to 64 years on treatment at KNH MOPC as cases and 51 non-hypertensive patients aged 45-64 years attending dental outpatient clinic as controls. A detailed history, physical examination, blood pressure measurement and otoscopy was done by the primary investigator. Pure tone audiometry (PTA) was conducted by a qualified audiologist in the ENT clinic.

Results: Thirteen out of fifty one hypertensive patients (25.5%) and seven out of fifty one non-hypertensive patients (13.7%) had hearing loss. Four out of twenty two (18.2%) patients with grade 1 hypertension and three out of eleven (27.3%) with grade 2 hypertension had hearing loss. Among the hypertensive patients 29.0% who had been treated for 5 years or less had hearing loss while 33.3% who had hypertension for more than 10 years had hearing loss. Ten out of the 13 (76.9%) hypertensive patients had mild hearing loss. Twenty (39.2%) of the hypertensive patients had tinnitus.

Conclusion: this study has shown that hypertension is a risk factor for hearing loss as demonstrated by the higher prevalence and raised hearing threshold levels by pure tone audiometry in all frequencies in the hypertensive patients. However, it is not statically significant.

Supervisors

3. Dr. Peter Mugwe

MBChB(UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

4. Prof. H.O. Oburra

MBChB, MMED (SURG) FRCSE(OTO)
Professor ENT-HEAD and Neck surgeon
University of Nairobi

2017

Dr. Maria Gachambi Muthoka-2017

The effects of adenotonsillectomy on pulmonary pressures as seen in the Ent department at the Kenyatta National Hospital

Graduated in 2017 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Main objective: To find out whether there is any difference between pre and post-operative pulmonary artery pressures in patients with Adenotonsillar hypertrophy by 6 weeks post operatively.

Study design and methodology: Patients were consecutively recruited from the ENT department KNH. A thorough history and clinical examination were done. The lateral soft tissue neck radiographs already done, were used to measure the adenoid ratio using the Cohen and Konak grading scale and confirm adenoid hypertrophy and physical examination was used to grade the tonsillar hypertrophy using the Brodsky grading scale. Patients were assessed for level of awake partial pressures of oxygen, weight, height and body mass index. The cardiovascular and respiratory systems were also assessed. Echocardiograms were done pre-operatively and at 6 weeks post-operatively.

Results: There was a slight male preponderance with an age range of 2.5-4 years had the highest number of patients, while the symptom duration ranged from 1-9 years with the highest number of patients having symptoms of 1-3 years. The history of symptoms included snoring, mouth breathing and sleep disordered breathing with apneic attacks as seen by an observer (97.1%,96.2% and 90.4%). The pulmonary pressures range 0 to 24mmHg, 87% below 20mmHg and 10% between 20-24mmHg. Pre-op and post-op mPAP changed significantly (P value of <0.001).

Conclusion

There was an association between adenoid size and the level of Mpap, but no association between tonsillar size, history of symptoms, symptom duration and Mpap. Pre-operative mpap dropped significantly post-operatively for 87% of patients.

Supervisors

1. Dr. . Peter Mugwe
MBChB(UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi
5. Prof. Christine Awuor Yuko- Jowi
Professor of Paediatric Cardiology,
Cardiology Department
University of Nairobi.

6. Dr. John Ayugi
MBChB, M.Med(ENT Head and Neck Surgery).
Lecturer, Department of Surgery
University of Nairobi

2016

Dr. Josephine Njeri Kimani

Prevalence and predictors of oral mucositis in patients undergoing Radiotherapy for Head and Neck Carcinomas at the Kenyatta National Hospital

Graduated in 2016 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Main objective: To determine the prevalence and predictors of oral mucositis in patients with head and neck carcinomas, undergoing radiotherapy at the Kenyatta National Hospital.

Study Design and Methodology: This was a prospective cross sectional study. Pre-treatment demographic and clinical data were collected and the patient's oral cavity was also examined. Participants were re-evaluated at the end of 2, 4 and 6 weeks, during which any oral lesions were graded using the NCI-CTC (National Cancer Institute - Common Terminology Criteria) grading scale.

Results: All the 72 (100%) patients developed mucositis by the second week of treatment. Majority of the patients, 51 (70.8%) developed grade 3 mucositis by the 2nd week of treatment. Patients with oral cavity tumours had the highest risk of developing severe mucositis ($p < 0.001$). The presence of oral ulceration prior to commencing treatment was found to increase the risk of developing severe mucositis (p value 0.005) and concurrent chemotherapy increased the odds of developing severe mucositis by 2½ times.

Conclusion: The prevalence of mucositis is high in head and neck carcinoma patients undergoing radiotherapy at KNH. There is need for increasing interventions in management of mucositis, to improve the quality of care offered in our set up.

Supervisors

Dr. Peter Mugwe

MBChB(UoN), MMED ENT Head and Neck Surgery (UoN)

Consultant ENT Surgeon, Senior Lecturer

Department of ENT/Head and Neck Surgery

University of Nairobi
Dr. Catherine Irungu
MBChB(UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon,
Department of ENT/Head and Neck Surgery
University of Nairobi

2015

Dr. Alice Mugwaneza - 19/06/2015

Risk factors for Otitis Media with Effusion in children at Kenyatta National Hospital
Graduated in 2015 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Main objective: To determine if age, gender, day care center attendance, cigarette smoke, positive history of upper airway obstruction, adenoid hyperplasia, bottle feeding and history of recurrent acute otitis media are the risk factors associated with the occurrence of Otitis media with effusion in children at Kenyatta National Hospital.

Study Design: Hospital based cross-sectional descriptive study.

Material and Methods: A questionnaire was used to collect data on demographic and relevant history in 57 children aged 7 years and less. The case definition of OME was based on clinical syndromic diagnosis and the detection of presence of fluid in the middle ear behind an intact tympanic membrane without active inflammation. Tympanographic assessment was carried out to confirm the presence of OME. Children with type B tympanograph were recruited into the study. Clinical data were collected on a preformatted questionnaire and descriptive analysis were performed in SPSS 21 version. The analysis included calculating measures of central tendency (means and medians), measures of spread (standard deviation and ranges) for continuous variables, and frequency distributions for categorical variables.

Results: The mean age of the children presenting with OME was 54.6 months (SD 17.2), 27 (47.4%) patients were aged between 48 and 63 and 38 (66.7%) were males. For the environmental risk factors it was determined that 11 (19.3%) children attended day care centres and 9 (16.1%) lived in the same household with an adult who smokes tobacco, with 5 adults reported to smoke within the residence. The median duration of breastfeeding was 19 months (range 6 to 36) and bottle feeding was prevalent (63.2%) in children with OME. URTI symptoms were common in OME patients:

rhinorrhea 41 (73.2%), nasal congestion 42 (73.7%) and cough 40 (70.2%). AH and AR occurred in 35 (79%) and 49 (86%) patients, respectively. The prevalence of AOM was 75.4% and rAOM occurred in 25 (43.9%) patients.

Conclusion: This study has determined the prevalence of established risk factors of OME in Kenyan children aged below 7 years with tympanographic assessment which confirmed OME diagnosis. These findings highlight modifiable risk factors that can be targeted in the management and prevention of the disease. Health education for parents and caregivers can help prevent the development of OME diagnosis.

Supervisors

1. Dr. Peter Mugwe

MBChB(UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

2. Dr. Joyce Aswani

MBChB(UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon,
Department of ENT/Head and Neck Surgery
University of Nairobi

2013

Dr. Marianne Gitau - 13/11/2013

H58/ 76386/ 2009

1. Assessment of quality of life in patients with Head and Neck Cancer at Kenyatta National Hospital
Graduated in 2014 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Main objective: To determine the quality of life in head and neck cancer patients at Kenyatta National Hospital using the European Organization for the Research into Treatment of Cancer (EORTC). Quality of life core questionnaire 30(QLQ Head and neck module 35(H&N35) questionnaire.

Specific objective: To assess the reliability and validity of the QLQ C30 and QLQ H&N 35 questionnaires; to determine whether age, gender, localization, stage and prior treatment modality have an impact on the quality of life.

Study Design: Descriptive cross sectional study.

Materials and methods: The quality of life (QOL) of patients suffering head and neck cancer was assessed using the EORTC QLQ C30 and QLQ H&N 35 questionnaires. 123 patients who presented to the Radiotherapy department after diagnosis of head and neck cancer filled in the questionnaires.

Results: The QLQ C30 and the QLQ H&N 35 demonstrated acceptable reliability/internal consistency. They also displayed sufficient criterion validity and were sensitive to group differences with regard to age, gender, tumour stage, tumour site and prior treatment.

Conclusion: The results obtained support the use of the two questionnaires in the assessment of quality of life in head and neck cancer patients. There is a negative co-relation between tumour stage and QOL. Advancing age and co-morbidity influence QOL.

Supervisors

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi
2. Dr. Musa Kipingor
MD (Carol Davilla. Buch), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon
Department of ENT/Head and Neck Surgery
Kenyatta National Hospital

2012

Dr. Meera H Patel - 21/11/2012

H58/ 71914/08

2. Correlating the severity of conductive hearing loss with the size and site of pars tensa tympanic membrane perforation using video-otoscopy

Graduated in 2012 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Background: Pars tensa tympanic membrane perforations are associated with a varying degree of conductive hearing loss which is dependent on variables like size and site. In Kenya, Use of video-otoscopy is limited thus the description size and site of the perforations is subjective.

Objective: To determine the correlation of degree of conductive

hearing loss with the size and site of the pars tensa tympanic membrane perforations using video-otoscopy at the Kenyatta National Hospital.

Study Design: This was a prospective descriptive study.

Material and Methods: The study was carried out in the ENT department of the Kenyatta National Hospital from April 2011 to January 2012. Video otoscope 426/MP was used to take photographs of the perforations. Dino capture 2.0 version 1.3.2. was used to calculate the perforation area. Pure tone audiometry was carried out and results were analysed.

Data analysis: Data was tabulated into customized Microsoft Office Access 2007 database proformas. Stata V11.2. was used to carry out the analysis and included the ANOVA, Kruskal-Wallis, Pearson's chi square and linear regression methods.

Results: A total of 80 ears were included with an equal sex distribution and median age of 14.5 years. The commonest cause of perforation was chronic otitis media (84%). The overall mean percentage perforation size was 31.35%. Kruskal-Wallis test: $p=0.0001$ demonstrated a significant correlation between size of perforation and hearing loss. Anteroinferior perforations had an average of 26dBHL and posteroinferior perforations had an average of 44.3dBHL.

Conclusion: Variables such as the size and site are important aspects in affecting the degree of hearing loss. The larger the perforation the greater the hearing loss. Posterior perforations and those that have a posterior component had a higher hearing threshold.

Supervisors

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi
2. Dr. Patel Asmeeta I.
Consultant ENT Surgeon
ENT Department, Kenyatta National Hospital

Dr. Ochungo Peter

3. The human palatine tonsil as a reservoir for helicobacter pylori
Graduated in 2012 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Background: Human palatine tonsils are lymphoepithelial tissues which are part of the mucosa associated lymphoid tissues which play a vital role in sampling and effector functions for the upper respiratory tract. Palatine tonsils may also serve as a reservoir for pathogens including *H. pylori*. It has been suggested that this may be responsible for the chronicity and recurrent nature of tonsillitis in some patients and may serve as an extra gastric reservoir for *H. pylori*.

Objective: To determine if *H. pylori* colonizes tonsillar tissue and to analyze the difference in patterns of *H. pylori* colonization in patients with chronic recurrent tonsillitis compared to those with adenotonsillar hypertrophy.

Study Design: Prospective cross sectional comparative study.

Materials and Methods: A total of 78 cases were recruited from patients booked for tonsillectomy or adenotonsillectomy at the ENT satellite theatre. History was elicited from each patients recruited using preformatted questionnaires. After tonsillectomy, one sample was taken from either tonsil and analysed using rapid urease test kit and histology for detection of *H. pylori* in the tonsil tissue.

Study Setting: Kenyatta National Hospital - a tertiary teaching hospital.

Results: A total of 78 tonsils were analysed for *H. pylori* by Rapid urease test and by histology. *H. pylori* was present in 24 (30.5%) of tonsillar tissues. Colonization of palatine tonsils by *H. pylori* was found in 15 (38.5%) of patients with chronic recurrent tonsillitis and 9 (23%) of patients with adenotonsillar hypertrophy. There was a statistically significant difference in risk of colonization by *H. pylori* when adjusted for age [OR 2.5 (1.6-3.9) $P < 0.001$]. Colonization of tonsil tissues by *H. pylori* by histology was found in 4 (10.3%) of tonsil tissues. All were found in chronically recurrent tonsils. A total of 5 (12.8%) cases had colonization by coccoid forms of *H. pylori*.

Conclusion: *H. pylori* colonization of the palatine tonsil is a new frontier with early results showing colonization of tonsils by *H. pylori*. This may lead to change in management protocols for chronically recurrent tonsils and may also lead to new methods of treating *H. pylori* related gastric disease.

2010-2011

Dr. Gitonga Sophie - 28/05/2011

4. Sensorineural Hearing Loss after Treatment of Nasopharyngeal Carcinoma

Graduated in 2011 Degree of Masters in Medicine in Otolaryngology,

ABSTRACT

Background: Combined modality treatment has become the standard care for nasopharyngeal carcinoma. High dose radiotherapy combined with chemotherapy has yielded a 5-year locoregional control of more than 80%, yet the combined ototoxic effects of both radiotherapy and cisplatin are poorly understood. This study aimed at analysis the prevalence and pattern of sensorineural hearing loss after treatment of nasopharyngeal carcinoma at the Kenyatta National Hospital.

Study design: Prospective cross-sectional study.

Materials and methods: Between 21st October 2010 to 7th April 2011, a total of 40 patients, 80 ears were serially recruited from Kenyatta National Hospital ENT clinic and Cancer treatment Centre (CTC). Pure-tone audiogram assessment was performed before treatment and immediately after treatment. The effects of concurrent chemotherapy and radiotherapy were analysed.

Data analysis: Data was entered into a customized MS access database. The characteristics of the patients were tabulated. Graphical tools were used to show patients with hearing loss before and after treatment. Estimates of prevalence and the 95% confidence intervals were calculated using STATA'S 'proportion' command. Tests on the equality of proportions before and after treatment were computed using large-sample statistics using Stata's 'prtest' command.

Result: 160 audiograms were included in the present analysis, with each ear treated as an independent case. Conductive hearing loss was the main type of pre-treatment hearing loss with a prevalence of 81.25%, while prevalence of post-treatment hearing loss was 63.7%. Mixed hearing loss and sensorineural hearing loss was observed after treatment with a prevalence of 54.9% and 45.1% respectively. The difference in prevalence of hearing loss before and after treatment was 15% (95% CI, 0.9, 29.1) and with was statistically significant ($p=0.043$). There was strong evidence suggesting that the odds of developing hearing loss increased linearly with increase in the stage of the tumor as measured by the TNM and UICC classification, gender and the degree of pre-treatment hearing loss.

Conclusion: Due to the high prevalence of post-treatment hearing loss, we do need to counsel the patient of this disabling side effect. There is need to use alternative modes of therapy such as linear accelerators or other chemotherapeutic agents that are less ototoxic.

Supervisors

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery

University of Nairobi

2. Dr. Catherine Nyongesa Watta
Senior radio-oncologist consultant
Cancer treatment centre
Kenyatta National Hospital

Dr. Harbakash S. Jandu

5. Patterns of Patients with Hearing Loss as seen in the Audiology Department at Kenyatta National Hospital
Graduated in 2011 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery

ABSRTACT

Objective: To study the Patterns of Hearing Impairment as seen in patients coming for Audiological Assessment to the ENT Department at Kenyatta National Hospital, Nairobi, Kenya.

Design: Descriptive cross-sectional survey. Participants: Patients coming for Audiological Assessment to the ENT Department at Kenyatta National Hospital, Nairobi. Main outcome measure: Hearing impairment, defined as average of audiometric threshold values of more than 25 dB HL at the frequencies 0.5, 1, 2 and 4 kHz.

Methods and materials: A total of 231 patients were enrolled. A brief history was taken from each patient and otoscopy done. Audiological assessment - Pure Tone Audiometry (PTA), play audiometry or Auditory Brainstem Response (ABR). was carried out for each participant. **Results:** There were 121 (52.4%) males and 110 (47.6%) females in the study. The youngest patient was four months old and the oldest was 96 years old with a median age of 24 years. Hearing Loss was found to be profound in 31.6%, moderate in 23.8%, severe in 17.3% and mild in 10% patients. Normal hearing was found in 17.3% of the patients. Sensori-neural hearing loss was found in 50.6%; conductive hearing loss was 18.6% and mixed hearing loss in 13.5%. The causes of HL encountered were CSOM (21.6%), head injury (3%), and ototoxicity due to medication (17.8%).

Conclusion: Most of the affected patients (72.7%) had disabling hearing loss. The most common type of HL was sensori-neural at 50.6%. The age group most affected was below 10 years (23.4%). Overall, Chronic Suppurative Otitis Media was the most common cause GfHL (21.6%).

Dr. Nyambaka O. Kelvin - 17/08/2011
H58/70893/07

6. An Assesment of Knowledge, Attitude and Practice (KAP) in first aid

management of epistaxis by Accident and Emergency clinical staff at Kenyatta National Hospital.

Graduated in 2011 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Background: Epistaxis is one of the commonest emergencies in Accident and Emergency (A&E) and Ear, Nose and Throat (ENT) departments. A vast variety of these patients settle with simple standard first aid measures. The measures that are widely accepted were formulated by *St. John's Ambulance* and they include:

- (1) Position- Sitting and leaning forward
- (2) Pressure- applied to the fleshy part of the nose (alae nasi) for 10-15 minutes.
- (3) Swallowing-breathing gently through mouth, avoiding swallowing any blood, and
- (4) Referral if nose bleeding persists.

Due to the high incidence of epistaxis, it's essential that the medical staffs that have the first encounter with the patients possess appropriate knowledge on its immediate management. Low levels of knowledge on first aid measures have been demonstrated in the medical staff and general public. This study therefore aimed at evaluating the knowledge, attitude and practice (KAP) of these measures by Accident and Emergency clinical staff at KNH.

Materials and methods: The study design was descriptive cross sectional. The principal researcher administered a questionnaire to the clinical staffs and data collected was analyzed by use of SPSS version 12.0 and chi square test.

Results: Data was collected from 70 clinical staff between October and December 2010. Nurses were the most respondents (68.6%); 17.1% were medical officers and 14.3% were SHOs. Majority of the respondents had worked for over 10years after the highest qualification. The commonest first aid measures reported to be known by respondents including pinching the nose (94%), nasal packing (80.6%) and sitting leaning forward position (76.1%). Only 38.1% of respondents demonstrated the correct site for pinching the nose. The main source of information for first aid measure was the curriculum in training (64.2%) while 16.4% sourced from a first aid course they had done. On positioning of patients with epistaxis, 60% gave correct responses while 51% correctly said patient should be referred if epistaxis persists. All the 70 respondents felt that first aid was necessary in treatment of epistaxis. Majority (72.9%) of the respondents said they had ever given first aid to a patient with epistaxis.

Conclusion: The clinical staffs in the A & E department have inadequate knowledge on the first aid measure of epistaxis. However most had good attitude and had provided first aid to patients presenting epistaxis. There is need for training the staff on these

measures.

Supervisors

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

2. Dr. Kamau Joseph
Consultant ENT Surgeon, ENT Department
Kenyatta National Hospital

2009

Dr. Okumu K. Aloo - 04/09/2009

7. Prevalence of Rhinosinusitis in patients on Follow up for Asthma at the Kenyatta National Hospital Chest Clinic.
Graduated in 2009 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Objective: To determine the prevalence of Rhinosinusitis in asthma patients being followed up at the Kenyatta National Hospital Chest clinic.

Design: Descriptive cross sectional study.

255 Adult patients aged from 18 to 80 years being followed up for asthma were randomly selected and examined. Rhinosinusitis was diagnosed according to the American Academy of Otolaryngology Head and Neck Surgeons criteria.

Out of the 255 patients recruited 29.8% were found to have Rhinosinusitis. Out of these patients with Rhinosinusitis only 11% of them were on treatment for their condition.

Majority of the patients were female (58%). Male to female ratio was 1:4. The commonest symptoms were nasal obstruction (90%), nasal discharge (80%) and purulence on nasal examination (69.7%).

Conclusion: There is a high prevalence of Rhinosinusitis in asthma patients. The study also demonstrated that there are a low number of patients with asthma and Rhinosinusitis who are on treatment for Rhinosinusitis. There is need for collaboration between the chest physicians and otolaryngologists in managing asthma patients.

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

Dr. Gitonga G. Nderitu - 04/09/2009

8. Prevalence of HIV Infection in Patients with Head and Neck Abscess and their Bacteriological Pattern at Kenyatta National Hospital.
Graduated in 2009 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery.

ABSTRACT

Introduction: Head and neck space infection continue to be reported despite the availability of modern antibiotics. The HIV epidemic has brought new challenges in the diagnosis and management of most infective conditions including head and neck space infections.

Methodology: A descriptive cross-sectional study was carried out between the month of October and March 2009 in which patients with a diagnosis of cervical abscess were recruited. History of the neck abscess and any complication arising as a result of the abscess was noted. Pus specimen was taken from the patients was cultured for bacteria growth and ZN staining was done from the pus specimen. HIV testing was also done on all the patients. Analysis was done on the difference on the presentation and complication as well as the bacteriological pattern between the HIV positive and negative patients.

Results: 48.9% of the patients with neck abscess were found to be HIV positive. There was no difference between the two groups on the possible source of infection and the sites of the neck abscess. There was also no difference on the antibiotic sensitivity pattern between the two groups. TB was diagnosed only in the HIV positive patients at 27.9% of all HIV positive patients. Positive cultures were obtained in 64.4% of HIV negative patients as compared to 18.6% of all HIV positive patients.

Conclusion: All patients with a diagnosis of neck abscess should have serological test for HIV antibodies and those found positive should be tested to rule out extra pulmonary TB as the cause of neck abscess.

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

2008

Dr. Kaitesi B. Mukara

9. Mucociliary Clearance Time in Patients with and without Rhinitis. A case controlled study.

Graduated in 2008 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery

ABSTRACT

Introduction: Rhinitis may be allergic or non allergic. Allergic rhinitis, perennial or seasonal is the most common type of rhinitis affecting approximately 20% of the population while non allergic rhinitis affects 5-10%. While rhinitis is not a life threatening condition, complications can occur and the condition can significantly impair quality of life.

Aim: To measure the mucociliary clearance time in patients with and without rhinitis.

Setting: ENT H&N. and orthopedic departments at KNH.

Results: 130 cases between the age of 18 and 40 years and matched controls were inducted. Females accounted for 65% of patients treated with rhinitis while sneezing was the commonest presenting symptom (96.2%), The average mucociliary clearance time was significantly different, 12.64 and 7.80 minutes in cases and controls respectively ($p < 0.01$). Nasal crusting as well as the rheology of mucus were significant factors in determining mucociliary clearance time ($p = 0.05$)

Conclusion: In our study group, neither age nor sex affected MCT. Rheology of mucus and nasal crusting significantly affect MCT. Nonetheless, there is an overlap between normal values in cases with rhinitis and controls.

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

2007

Dr. Makau Simon

10. Pattern of Hearing Loss due to Antiretroviral Therapy in HIV infected

Adult Patients at the Kenyatta National Hospital.

Graduated in 2007 Degree of Masters in Medicine in Otolaryngology,
Head and Neck Surgery

ABSRTACT

Introduction: currently, there is increasing use of ARVs in Kenya, and more than 70,000 infected persons are on treatment, and the number increases day by day, especially with free treatment all over the country at the moment. While most of the side effects of ARVs have been found out little is known about their ototoxicity

Aim: to determine if the patients on ARVs develop any significant hearing impairment compared to those who are yet on ARVs.

Settings: the comprehensive care clinic KNH

Study Design: case controlled study

Methodology: two hundred and seventy one (271) HIV Positive patients on ARVs were recruited from the comprehensive care clinic at KNH. They underwent clinical examinations, Otoscopy and pure tone Audiometry, to establish and characterize any present hearing loss. The PTA results were compared with those of two hundred and seventy - three (273) HIV Negative patients who were not on ARVs. Cases were matched for age and sex. The CD4 cells counts of the patients were correlated with hearing levels, as well as the drugs combinations and duration of ARVs use. The results were then analyzed using the statistical package for social sciences (SPSS) version.

Results: hearing loss was found to be more in the control group (34%) in the study group (28%) the most frequent hearing disorder was SNHL for both groups and majority of the patients had mild hearing loss. The frequencies most affected were the higher levels, 4KHz and 8KHz. There was a general increase in the hearing loss with increasing age no significant correlation between hearing loss and CD4 level in the study group, $p > 0.05$ (0.49) as well as between hearing loss long- term use of ARVs, $p > 0.05$ (0.59)

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

Dr. Wahome James Nderitu - 18/06/2007

11. Post Thyroidectomy Recurrent Laryngeal Nerve Paralysis as seen at Kenyatta National Hospital, Kenya.

Graduated in 2007 Degree of Masters in Medicine in Otolaryngology,
Head and Neck Surgery

ABSRTACT

Background: Iatrogenic injury of recurrent laryngeal nerve (RLN) is one of the most serious concerns in thyroid surgery. I carried out a prospective study aimed at determining the prevalence of RLN paralysis, its presentation and the associated risk factors among patients undergoing thyroidectomy at Kenyatta National Hospital (KNH), Nairobi, Kenya.

Methods: All patients had indirect laryngoscopy (IL) done one day before the operation to assess the integrity of the RLNs through vocal cords function. Patients with RLN paralysis prior to surgery were excluded from the study. Symptoms occurring one day after the surgery were noted down. This was repeated at around six weeks post-operation and patients presenting with symptoms suggestive of RLN paralysis had a second IL done. Correlation between the occurrence of paralysis and the age, sex, histopathological process, type of operation done, surgeon's experience and intra-operative RLN identification was done.

Results: Seventy - one (88.08%) had benign thyroid disease while 9 (11.2%) had cancer of thyroid. Seven patients (8.8%) were found to have developed RLN paralysis with the majority (57.1%) having suffered left adductors paralysis. Re-operation for recurrent malignancy had the highest rate of paralysis (40%) while primary operations in general (5.6%) and primary operations for benign disease (5.9%) had the lowest rates. Three patients (42.9%) presented with hoarseness alone, 3 (42.9%) with hoarseness and aspiration while 1 (14.2%) had dyspnoea.

Conclusion: Thyroidectomy is an important etiological factors to developing RLN paralysis at KNH. Re- operations on the thyroid and failure to identify the RLN intra- operatively are significant risk factors to developing RLN Paralysis. The majority of patients who develop RLN paralysis following thyroidectomy at KNH present with hoarseness

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

2006

Dr. Kippingor Musa

12. Videostroboscopic Findings in Patients with Hoarseness of Voice at

the Kenyatta National Hospital.

Graduated in 2006 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery

ABSTRACT

This was a prospective study on the Etiology of Chronic Hoarseness of Voice (HOV) and demographic characteristics of patients attending Kenyatta National Hospital (KNH) Ear, Nose and Throat, Head and Neck surgical department (ENT/HNS) and Ward. 126 patients inducted in the study had chronic Hoarseness of voice for two or more weeks. The patients age ranged from 2.16-80 (mean of 38.15yrs). The male to female ratio was 1.2:1. The commonest causes of chronic Hoarseness of voice were due to inflammations or infectious origin predisposing to chronic Laryngitis (56.3%). Among this group were Vocal or singers nodules (15.1%), Laryngitis due to GERDILPR (14.3%), Chronic simple Laryngitis (9.5%) and TB Laryngitis (7.1%). Neoplasm (malignant) constituted 25.4% of the total patients while FVD was found to be 12.7%. The duration of Hoarseness ranged from 2 weeks to 52 years (mean-29.73 months). One patient presented with HOV secondary to a large congenital web after 52 years. The mean without this patient was 24.5 months. 69.8% of patient's with Chronic Hoarseness of voice were referrals. Apart from change of voice, the common associated symptoms were throat pains, Odynophonia and cough.

Dr. Gikonyo B. Mbira

13. Acoustic Brainstorm Response Latencies in Children under five years old Referred for Audiological Assessment.

Graduated in 2006 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery

ABSTRACT

According to WHO estimates up to 20% of the human population suffers from some degree of hearing loss. Hearing loss is seen at all stages of human life from neonates with congenital hearing loss to the elderly with presbycusis, and all the ages in between the extremes. The assessment and quantification of hearing loss is thus an important undertaking in the fields of otolaryngology and audiology, which deal with pathology of the auditory system. Accurate assessment of hearing, known as audiometry, is vital to the diagnostic evaluation of patients with suspected ontological disorders and is particularly challenging in infants and young children, given the need to determine of the underlying process, as well as plan rehabilitation of hearing loss.

The auditory brainstem response (ABR) audiometry is an objective method that uses an evoked potential generated by a brief click or tone pip transmitted from an acoustic transducer in the form of an insert earphone or headphone, to estimate hearing thresholds. Surface electrodes typically placed at the vertex of the scalp and ear lobes measure the elicited waveform responses. The waveform peaks, which normally occur within a 10-millisecond time period after a click stimulus is presented, are labeled I-VII and form the basis for an indirect evaluation of the hearing thresholds.

This study measured the ABR latencies for two hundred and twenty eight (228) children and aged below five years of age, who were referred for audiological evaluation. The study demonstrates that the ABR latencies obtained were similar to those seen in studies done elsewhere. It was able to show and conclude that ABR has a high sensitivity of 97% and a specificity of 98% and changes occurring in ABR waveform latencies with hearing loss were also similar to those seen in studies done elsewhere.

The study recommended that auditory brainstem response (ABR) audiometry is an objective neurological test of auditory brainstem function that can be used more widely in the assessment of auditory function in our country's medical facilities.

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

2003

Dr. Muchiri Macharia

14. Demographic Pattern and Clinical Characteristics of Nasopharyngeal Carcinoma seen in Kenyatta National Hospital
Graduated in 2003 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery

ABSRTACT

Aim: The aim of the study was to determine the demographic pattern of nasopharyngeal carcinoma with respect to age, sex, geographical distribution (of patients). The study also determined prevalent signs & symptoms, duration of symptoms before presentation, neck disease and stage presentation.

Setting: This was across-sectional descriptive study.

Methodology: A designed proforma was used to fill in symptoms (as complained by patients) and signs as observed on examination. The 5th edition UICC (1997) classification guidelines were used to stage

the disease.

Results: Were presented by use of tables, bar diagrams and pie charts. 125 patients were included in the study. Age range was 13 to 85 years. The highest frequencies were seen in age range 31-40 years (22.4%), 41-50years (20.8%) and 51-60 years (20%). Male: Female ratio was 2.2: 1. 38.4% patients were from Mt. Kenya / Central region. 80% and 71.2% of patients complained of neck swelling and nasal blockage respectively. Auditory symptoms were mainly unilateral. 88% of patients were seen to have cervical lymphadenopathy. CHL was noted in 36% of patients. 83% of patients presented in late disease (stages III & IV)

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

2002

Dr. Gathere K. Samuel

15. A Prospective Descriptive Study of ECG and Chest X-Ray Changes in Children with Adenoid and Tonsillar Hypertrophy
Graduated in 2002 Degree of Masters in Medicine in Otolaryngology, Head and Neck Surgery

ABSTRACT

This is a prospective descriptive case control study out at Kenyatta National Hospital. A total of 197 children were studied between August 2001 and February 2002 and 186 fitted the criteria. The 186 study patients were recruited from the ENT and the well baby clinics. All the children recruited from the well baby clinic formed the control group. After undergoing a clinical appraisal any abnormal findings from the ECG's and CXR's and PNS X-ray in the two groups were analysed and compared. The mean age of the children studied was 21.7 with SD of 16.9. The children ranged from 0-60 months age. We found the most salient clinical finding was habitual snoring at 99.1% versus controls 20 % ($p < 0.05$). Others were restless at night at 97.1% versus controls at 8.8 % ($p < 0.05$) and nasal blockage at 78.3% versus controls at 1.3 % ($p < 0.05$). Abnormal ECG's were found to be 11.4% with controls at 1.3% ($p < 0.05$). 11.1% of the study cases had cardiomegaly versus nil for controls. ($p < 0.05$).

Changes in CXR's and ECG's in children with adenoid and tonsillar hypertrophy were evaluated. Physical blockage of PNS by adenoidal

tissue using PNS X-rays was also demonstrated. Since the basic physiological problem is hypoventilation secondary to the physical blockage by the tissues causing hypoxia; hypoxia assessment would have been very imperative. This would have meant measurement of SAO₂ in all the patients. However as alluded in the literature review this requires a good polysomnography lab or oximeter, this study then sought to do only ECG, CXR's and PNS X-rays, which of course was major limitation. Hence the decision to skip oximetry was both technical and financial. Other studies have reported abnormal ECG's of between 3.3%-2.1% and cardiomegaly of 6.6%.

Conclusion: Children with adenotonsillar hypertrophy presenting with snoring, nasal obstruction or breathing difficulties, without frank cor pulmonale may have abnormal ECG's and CXR's indicating subtle cardiopulmonary changes.

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi
2. Dr. J. Wambani
Radiologist
KNH
3. Dr. C Maina
Peadriatric Cardiologist
KNH

2001

Dr. Mbogho G. M.

16. Vocal Cord Paralysis: A complication of Thyroid Surgery.
Graduated in 2001 Degree of Masters in Medicine in Otolaryngology,
Head and Neck Surgery

ABSRTACT

This is a retrospective descriptive study on vocal cord paralysis following thyroidectomy at the Ear, Nose and Throat Head and Neck Surgical Unit of Kenyatta National Hospital. A total of 454 patients were included in this study. Out of this 28 (6.2%) had developed vocal cord paralysis. In this study therefore the crude incidence of vocal cord was found to be 6.2%. The left vocal cord was found

paralyzed in more than 50% of the cases. It was also found that patients with repeat thyroidectomies, cancer of the thyroid gland and total thyroidectomies had a higher risk of developing vocal cord paralysis. Patients who had vocal cord paralysis with upper airway obstruction were done arytenoidectomy and lateralization of vocal cords to improve the airway. One patient had tracheostomy and a metallic tracheostomy tube with speaking valve fitted with satisfactory phonation, while eight patients are still being followed up in Ear, Nose and Throat, Head and Neck Clinic at Kenyatta National Hospital for possible lateralization of vocal cords.

Supervisor

1. Dr. Peter Mugwe
MBChB (UoN), MMED ENT Head and Neck Surgery (UoN)
Consultant ENT Surgeon, Senior Lecturer
Department of ENT/Head and Neck Surgery
University of Nairobi

COMMUNITY SERVICE

1. Outreach Programmes for Surgical Treatment of Ear Diseases in Makindu, Garissa, Nanyuki, Mwea, Kapenguria and Eldoret
 - This also serves as a training ground for our Postgraduate students and Ear Surgery.
2. Life Member of Kenya Society for deaf children

MEMBERSHIP OF PROFESSIONAL BODIES

1. Member of Kenya Medical Association
2. Kenya Ear Nose and Throat Society
3. Kenya Surgical Society
4. Kenya Association of Allergy
5. Member of ASEAN Sleep Surgical Society

REFEREES

1. Prof. H. O. Oburra
Department of Surgery

University of Nairobi

2. Prof. Isaac Muthure Macharia

Department of Surgery

University of Nairobi

3. Dr. Joyce Aswani

Department of Surgery

University of Nairobi