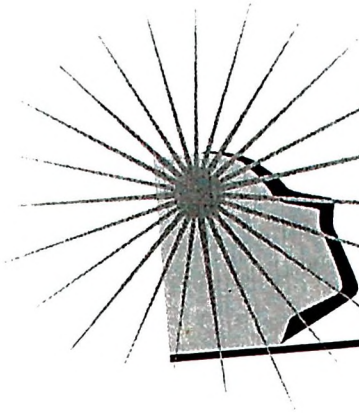


**9TH ANNUAL MIDDLE EAST UPDATE IN
OTORHINOLARYNGOLOGY CONFERENCE &
EXHIBITION**

DUBAI, AMIRIYAH ARAB BERSATU

22-24 APRIL 2012

**PROF. MADYA BAHARUDDIN ABDULLAH
PPSP**



9th ANNUAL MIDDLE EAST
UPDATE IN OTOLARYNGOLOGY
CONFERENCE & EXHIBITION
HEAD AND NECK SURGERY

Madinat Jumeirah, Dubai, UAE
22 – 24 April 2012

Sponsored by



Cleveland Clinic

**Speaker
Conference Syllabus**

www.me-oto.com

Disclaimer

The information in this educational activity is provided for general medical education purposes only and is not meant to substitute for the independent medical judgment of a physician relative to diagnostic and treatment options of a specific patient's medical condition. The viewpoints expressed in this CME activity are those of the authors/faculty. They do not represent an endorsement by The Cleveland Clinic Foundation. In no event will The Cleveland Clinic Foundation be liable for any decision made or action taken in reliance upon the information provided through this CME activity.

Copyright © 2012 The Cleveland Clinic Foundation. All Rights Reserved.

Co-Chairmen

Hussain Abdulrahman MD, Director of Medical Affairs and Consultant and Head of ENT Department, Dubai Hospital, Dubai Health Authority, Dubai, UAE

Muaaz Tarabichi MD FACS, Head of ENT Department, American Hospital Dubai, UAE

Khalid Hassan Al Malki MD PhD, Consultant, Associate Professor of Phoniatrics (Voice, Communication and Swallowing Disorders); Supervisor, Research Chair of Voice and Swallowing Disorders; Head, Communication and Swallowing Disorders Unit (CSDU); Head, Voice and Swallowing Disorders Team, King Saud University, Riyadh, Saudi Arabia; Head, Communication and Swallowing Division (CSDD), OTOLARYNGOLOGY /HNS Department, Riyadh Military Hospital, Riyadh, Saudi Arabia.

Activity Director

Michael S. Benninger, MD, Chairman, Head and Neck Institute; Professor of Surgery, Lerner College of Medicine, Cleveland Clinic, Cleveland, Ohio, USA

Program Director

Murtaza Najmi MS, ENT Specialist, American Hospital, Dubai, UAE.

International Speakers List

Astrid Wolf MD, Department of Oto-Rhino-laryngology, Medical University Innsbruck, Innsbruck, Austria

and Warwickshire, Heart of England NHS Foundation Trust, Warwick, UK

Baharudin Abdullah, MD, Associate Professor, Department of Otolaryngology- Head & Neck Surgery, University Sains, Kubang Kerian, Kelantan, Malaysia

Issac Issa Beegun, MRCSm Speciality Registrar, Department of ENT Head & Neck Surgery, Ipswich General Hospital, Ipswich, UK

Carlos M. Fernandis, MD, MBChB FCS (SA) FACS, Chief and Associate Professor, Division of Otolaryngology, Department of Surgery, University of Florida and Shands Jacksonville, Florida, USA

Jatin P Shah, MD, PhD, FACS, FRCS(Hon), FDSRCS(Hon), FRACS(Hon), Professor of Surgery, Elliot W Strong Chair in Head and Neck Oncology, Chief, Head and Neck Service, Memorial Sloan Kettering Cancer Center, New York, USA

C. Gaelyn Garrett, MD, Professor and Medical Director, Vanderbilt Voice Center, Department of Otolaryngology, Nashville, Tennessee, USA

John Niparko MD, George T. Nager Professor; Director, Division of Otolaryngology, Neurotology & Skull Base Surgery, Department of Otolaryngology-Head & Neck Surgery, The Johns Hopkins Hospital, Baltimore, USA

Frederic Venail MD, PhD, Associate Professor, ENT department, University Hospital of Montpellier, Montpellier, France

Karen MacIver-Lux, M.A., Aud(C), LSLS Cert. AVT, Director, MacIver-Lux Auditory Learning Services, Toronto, Canada

Georg Sprinzl, MD, Deputy Director, Department of Oto-Rhino-laryngology, Medical University Innsbruck, Innsbruck, Austria

Kenny Chan MD, Chief, Division of Pediatric Otolaryngology, Children's Hospital of Colorado; Professor, Department of Otolaryngology, University of Colorado School of Medicine, Aurora, Colorado, USA

Hassan Diab, MD, ENT surgeon, Saint Petersburg Research Institute of Ear, Nose, Throat and Speech, Saint Petersburg, Russian Federation

Kerry Olsen MD, Chair, Division of Otolaryngology Head and Neck Surgery, Mayo Clinic and Rochester Methodist Hospital, Rochester, Minnesota, USA

Hassan H Ramadan MD, MSc, FACS, Professor & Vice Chair, Residency Program Director, Department of Otolaryngology, Head & Neck Surgery, West Virginia University, Morgantown, West Virginia, USA

Krishan Ramdoo, MD, Core Surgical Trainee ENT NHS, Royal Berkshire Hospital, Reading, UK

Hisham Mehanna PhD, BMedSc (Hons), MBChB (Hons), FRCS, FRCS (ORL -HNS), Director, Institute of Head and Neck Studies and Education; Consultant Head-Neck and Thyroid Surgeon & Honorary Professor, University Hospitals Coventry

Miguel Angel Aranda de Toro, MD PhD, International Training Audiologist, ReSound, Copenhagen, Denmark

Parul Goyal MD, Department of Otolaryngology, SUNY Upstate Medical University, New York, USA

8:00	Instructional Course 21D: Surgical Planning for Advanced Maxillary Tumour – Baharudin Abdullah
9:00	Instructional Course 22D: Endoscopic Repair of CSF Rhinorrhea & Endoscopic Removal of Pituitary Tumours – Muhammad Umar Farooq
10:30	<i>(Relevant to Audiologists & Speech Language Pathologists)</i> Listening and Spoken Language Intervention for Children with Auditory Neuropathy Spectrum Disorders – Karen MacIver-Lux Moderator: Ghada Ahmed Ajamieh
11:30	<i>(Relevant to Audiologists & Speech Language Pathologists)</i> Intraoperative Monitoring (Protocol for Facial Nerve + Trouble Shooting) – Todd Sauter Moderator: Rana Batterjee
12:30	Lunch
14:00	Instructional Course 23D: Management of Parotid Tumours – Mohammed Al Garni
15:00	Instructional Course 24D: Para pharyngeal Tumors and Surgery – Kerry Olsen
16:00	Abstract Presentations: Otology Moderator: Sami Ismail <ul style="list-style-type: none"> • Cochlear Implantation, Hidden Issues – Omar Al Sharif • Risk of Acute Otitis Media in Relation to Acute Bronchiolitis in Children – Mohammed Gomaa • Use of Cartilage in Reconstruction of the Tympanic Membrane – Dhaval Shah • Influence of a Totally Open Oval Window on Bone Conduction in Otosclerosis – Tamer Omer Fawzy • ABI Outcome in Paediatrics – Mohammad Ajall Loueyan • Exploratory Analysis of the Relationship between GAIT Rite and Posturography Outcomes – Reem Al Qahtani • Is it Necessary to Penalize Impulsive Noise +5 dB due to Higher Risk of Hearing Damage? – Miguel Angel Aranda de Toro • A Rare Cause of Otorrhagia : Leech infestation – Afrooz Eshaghian • The Round Window Electrode Insertion and Inner Ear Malformations – Hassan Diab • Malleo-incudal Osteoma, an Unexpected Finding for Presumed Otosclerosis – Krishan Ramdoo • Unilateral Mixed Deafness, Tinnitus, Dizziness Due to Dural Ectasia- A Rare Case Report – Eshwaramani Krishnan • Prophylactic effect of Dexamethasone on Postoperative Nausea and Vomiting in Patients Undergoing Stapedectomy Surgery: A Randomized, Double-blind, Placebo-controlled Trial – Zahra Mokhtari
18:00	Close

SURGICAL PLANNING FOR ADVANCED MAXILLARY TUMOR

Overview

In advanced maxillary tumor, usually there is a choice between treatment for cure and palliation. In considering palliative treatment it is necessary to record the patient's symptoms and appreciate how they impact on their life, the extent of their disease and whether distant metastases are present. Some surgeons advocate local debulking of tumour with adjunctive radiotherapy as palliative treatment. For those patients who are potentially curable, most centres recommend a combination of radiotherapy and surgery. There is still dispute as to whether the irradiation should be used before or after surgery. Preoperative radiotherapy has traditionally been advocated and is more appropriate in radiobiological terms. Postoperative radiotherapy may be more valuable in slow-growing tumours, such as adenoid cystic carcinoma and chondrosarcoma. Surgical planning in advanced cases play a critical role in ensuring a good outcome for the patients.

Author's contact:

Assoc Prof Dr Baharudin Abdullah


Department of Otorhinolaryngology - Head and Neck Surgery,
School of Medical Sciences,
Universiti Sains Malaysia,
16150 Kubang Kerian,
Kelantan, Malaysia.
Tel: +6097676416
Fax: +6097676424
HP: +60139825050
Email: baharudin@kb.usm.my

Appreciation: Travel Grant Provided By Universiti Sains Malaysia

12TH ANNUAL MIDDLE EAST
UPDATE IN OTOLARYNGOLOGY
CONFERENCE & EXHIBITION
FEBRUARY 2-5, 2012, KUALA LUMPUR

Surgical Planning for Advanced Maxillary Tumour

ASSOC PROF DR BAHARUDIN
ABDULLAH
Consultant ORL Head and Neck Surgeon
Universiti Sains Malaysia
Malaysia



Introduction

- Sino nasal malignancies are uncommon and account for less than 1 percent of all neoplasms.
- Relatively asymptomatic in the beginning and may mimic symptoms for rhinosinusitis.

Symptoms of Nasal and Paranasal Sinus Tumors

Early	Late
Nasal obstruction	Epistaxis
Rhinorrhea	Cranial nerve dysfunction
	Proptosis
	Facial pain
	Facial swelling
	Trismus

Introduction

- Maxillary sinus tumours are the most common (55 percent) followed by the nasal cavity (35 percent), ethmoid sinuses (9 percent) and rarely frontal and sphenoid sinuses (1 percent).
- Surgery and chemoradiotherapy remain the mainstays of treatment.

Patterns of spread

Primary site	Anteriorly	Posteriorly	Medially	Laterally	Superiorly	Inferiorly
Frontal sinus	Skin	Anterior cranial fossa, frontal lobe				Infratemporal fossa, nasal cavity
Ethmoid sinus	Skin	Sphenoid, maxillary sinus, sphenoidal gland	Nasal cavity, cribriform plate	Orbit	Anterior cranial fossa, frontal lobe	Nasal cavity
Maxillary sinus	Cheek, skin	Periosteal bone, infratemporal fossa, maxillary sinus, middle cranial fossa	Nasal cavity	Cheek, skin	Orbit	Rostrum
Sphenoid sinus	Ethmoid sinuses	Orbit, maxillary sinus, posterior cranial fossa		Middle cranial fossa, cavernous sinus	Pituitary gland, hypothalamus	Neurohypophysis
Nasal cavity	Skin	Sphenoid sinus, maxillary sinus		Maxillary sinus, orbit	Anterior cranial fossa, nasal cavity	Rostrum

Scott Brown Textbook

Staging



Maxillary Sinus

- 1a. Primary tumor is less than 2 cm
- 1b. No evidence of primary tumor
- 1c. Carcinoma in situ
- 1d. Tumor limited to the maxillary sinus without extension to the floor of the orbit, the hard palate, or the middle nasal meatus, except extension to the posterior wall of the maxillary sinus and the cribriform plate
- 1e. Tumor involves any of the following: floor of the posterior wall of the maxillary sinus, infratemporal fossa, floor or medial wall of orbit, pterygoid fossa, ethmoid sinuses
- 1f. Tumor involves anterior orbital contents, skin of cheek, pterygoid plate, infratemporal fossa, cribriform plate, sphenoid or frontal sinuses
- 1g. Tumor involves any of the following: orbital apex, dura, brain, middle cranial fossa, or cranial nerves other than maxillary division of trigeminal nerve (V₁), nasociliary or ciliary

Scott Brown Textbook

PARTIAL MAXILLECTOMY

Partial removal of the upper jaw skeleton.

1. Medial maxillectomy involves the clearance of the lateral wall of the nose including the ethmoid sinuses.

Two variants are in common use.

2. Palatal resection along with the adjacent alveolus is used for tumours of the oral cavity that involve the hard palate.

Another term used is "fenestration".

TOTAL MAXILLECTOMY

- Total removal of the upper jaw
- Preferably as a bony box containing the tumour

EXTENDED MAXILLECTOMY

- An extended maxillectomy is required when the tumour extends beyond the maxilla.
- Commonly employed in advanced maxillary cancer.
- Involves resection of skin, adjacent structure and/or orbital exenteration.
- When the skull base is involved, the term craniofacial resection is used.

Management Planning

- Most patients have very advanced disease at the time of presentation
- There will be some who are incurable from the outset.
- Surgery for these patients runs the risk of raising hopes unrealistically and of increasing morbidity.

Management Planning

- Most important, the surgeon must obtain fully informed consent from the patient and the relatives.
- Some surgeons advocate local debulking of tumour with adjunctive radiotherapy as palliative treatment.

Criteria for unresectable lesions

- (1) transdural extension
- (2) invasion of the prevertebral fascia
- (3) bilateral optic nerve involvement
- (4) gross cavernous sinus invasion

Surgical approaches

- To facilitate the various bone resections it is necessary to use an appropriate soft tissue approach.
- Three different soft tissue approaches are used.
- 1. Lateral rhinotomy. This approach gives excellent exposure of both the nasal cavities and medial maxilla with a cosmetically acceptable incision in the lateral nasal crease.
- 2. Weber-Fergusson. Used when there is need for an orbital exenteration.
- 3. Midfacial degloving. A more cosmetic alternative to both the Moure's lateral rhinotomy and Weber-Fergusson approaches.

Orbital exenteration

- Attempts to preserve the orbital contents and reduce mutilation may result in orbital recurrence.
- The orbital periosteum may be involved with tumour while the underlying fat and orbit are not.
- Peroperative frozen section may determine whether the eyes can be retained and avoid an exenteration.

Orbital exenteration

- The function of the eye must be considered when making the decision to pursue preservation.
- The morbidity of radiation therapy should also be considered.
- Postradiation complications involving the orbit include keratitis, cataracts, retinopathy, glaucoma and chronic pain.

Anterior craniofacial resections

- Type 1: Craniofacial (transorbital) resection.
- Type 2: Craniofacial (window craniotomy) resection.
- Type 3: Craniofacial resection.

Type 1: craniofacial (transorbital) resection

- This procedure is essentially an extended medial maxillectomy using a lateral rhinotomy incision.
- A careful exploration of the anterior nasal cavities using the operating microscope and frozen section histological control.
- The wide exposure allows resection and repair of both the ethmoid roof and orbital periosteum if indicated.

Type 2 :craniofacial (window craniotomy) resection

- In this procedure a lateral rhinotomy approach is used for anterior access and extended superiorly in a frown line to expose the frontal bone.
- A small midline 'window' craniotomy is made giving access to the floor of the anterior cranial fossa.
- The dura is elevated from the roof of the ethmoids and cribriform plate and the area is encompassed with a cranial osteotomy.

Surgical approaches

- To facilitate the various bone resections it is necessary to use an appropriate soft tissue approach.
- Three different soft tissue approaches are used.
 1. Lateral rhinotomy. This approach gives excellent exposure of both the nasal cavities and medial maxilla with a cosmetically acceptable incision in the lateral nasal crease.
 2. Weber-Fergusson. Used when there is need for an orbital exenteration.
 3. Midfacial degloving. A more cosmetic alternative to both the Moure's lateral rhinotomy and Weber-Fergusson approaches.

Orbital exenteration

- Attempts to preserve the orbital contents and reduce mutilation may result in orbital recurrence.
- The orbital periosteum may be involved with tumour while the underlying fat and orbit are not.
- Peroperative frozen section may determine whether the eyes can be retained and avoid an exenteration.

Orbital exenteration

- The function of the eye must be considered when making the decision to pursue preservation.
- The morbidity of radiation therapy should also be considered.
- Postradiation complications involving the orbit include keratitis, cataracts, retinopathy, glaucoma and chronic pain.

Anterior craniofacial resections

- Type 1: Craniofacial (transorbital) resection.
- Type 2: Craniofacial (window craniotomy) resection.
- Type 3: Craniofacial resection.

Type 1: craniofacial (transorbital) resection

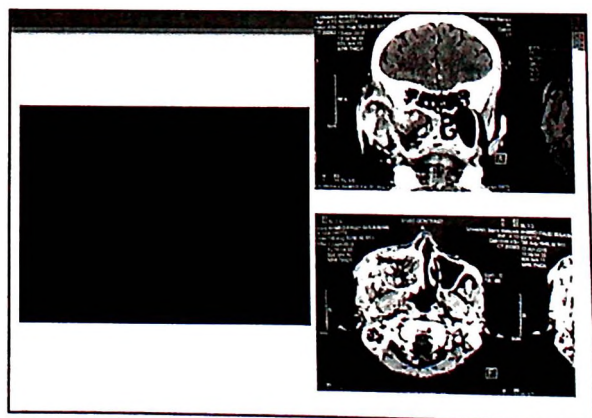
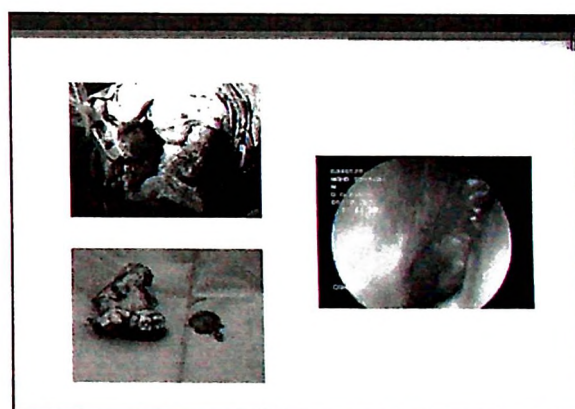
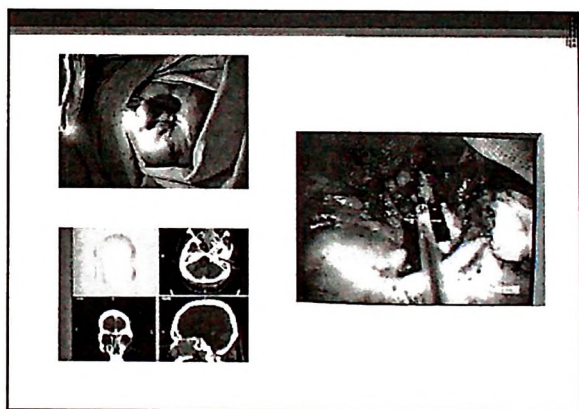
- This procedure is essentially an extended medial maxillectomy using a lateral rhinotomy incision.
- A careful exploration of the anterior nasal cavities using the operating microscope and frozen section histological control.
- The wide exposure allows resection and repair of both the ethmoid roof and orbital periosteum if indicated.

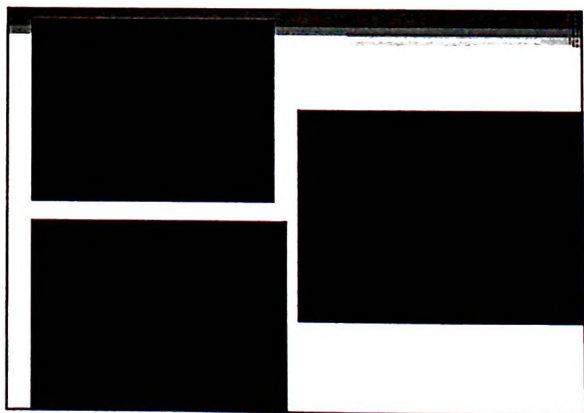
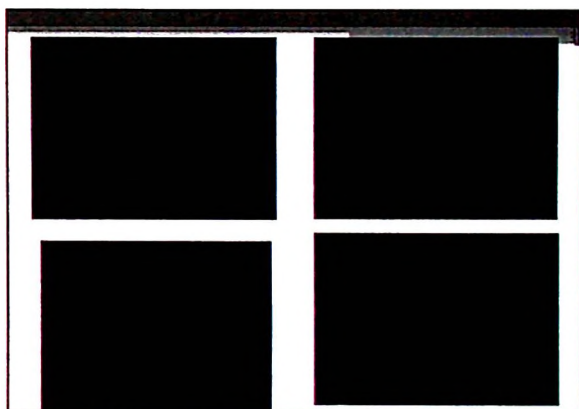
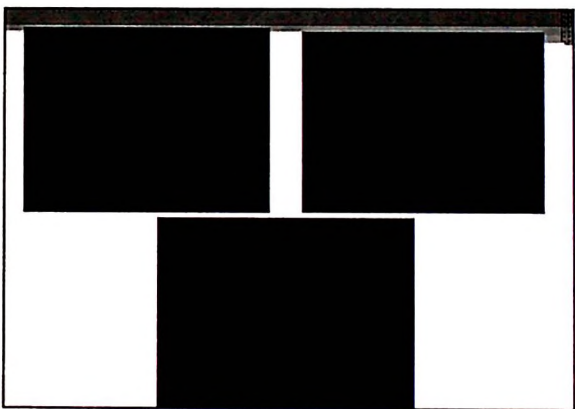
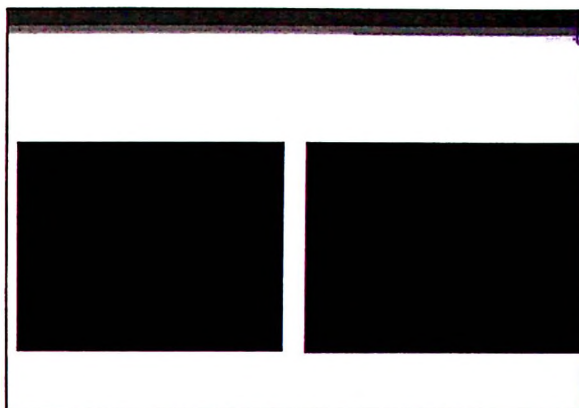
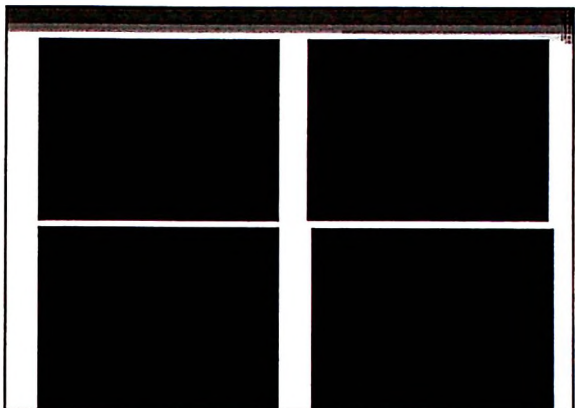
Type 2 : craniofacial (window craniotomy) resection

- In this procedure a lateral rhinotomy approach is used for anterior access and extended superiorly in a frown line to expose the frontal bone.
- A small midline 'window' craniotomy is made giving access to the floor of the anterior cranial fossa.
- The dura is elevated from the roof of the ethmoids and cribriform plate and the area is encompassed with a cranial osteotomy.

Type 3: craniofacial resection

- This operation combines a transfacial approach with a neurosurgical approach, such as a frontolateral craniotomy, to allow the resection of extensive tumours.
- Skull base surgery demands an interdisciplinary approach working in teams.





PROGNOSIS

- The overall prognosis of sinonasal malignancy is directly related to the degree of local control.
- Absolute local control rates for all malignancies are 50 percent at five years, 31 percent at ten years and 21 percent at 15 years.



9TH ANNUAL MIDDLE EAST
UPDATE IN OTOLARYNGOLOGY
CONFERENCE & EXHIBITION
11-13 NOVEMBER 2012, DUBAI, U.A.E.

Thank you!

Appreciation: Travel Grant Provided by Universiti Sains Malaysia

Day 3 – Room 4

08:00	Instructional Course 31B: Management of Neck – Jatin Shah
09:00	Instructional Course 32B: Techniques of Stapedotomy – John Niparko
10:00	Instructional Course 33B: Neck Dissection in Differentiated Thyroid Cancer: Indications & Techniques – Baharudin Abdullah
11:00	Instructional Course 34B: Neck Dissection – Salma Mohammed Al Shibani
12:00	Instructional Course 35B: Management of Inverted Papilloma – Roy R. Casiano
13:00	Lunch

Young Otolaryngologist Day

14:00	Session IV: Otology Moderator: Sertac Yetiser <ul style="list-style-type: none"> • Inner Ear Deformities in Cochlear Implant Patients at Damascus University Hospitals - Shervin Ghavami Lahiji • Urinary Cortisol Levels in Workers of the Noisy Factory of Isfahan Sepahan Laye Textile Factory, - Farbood Kalantari • Clinical Comparative Study of Efficacy of Epley Manoeuvre & Semont Manoeuvre in Benign Positional Vertigo - Syed Muhammed Asad Shabbir • Evaluation of the Synaptic Plasticity via LTP on Mouse in the Noise Over-exposure Tinnitus Model - Ash Çakır • Evaluation of Audio Vestibular Findings in Multiple Sclerosis - Ayca Ant • Protective Effect of Resveratrol against Cisplatin-induced Ototoxicity – Yüksel Olgun
15:30	Coffee
16:00	Session V: Otology Moderator: Sertac Yetiser <ul style="list-style-type: none"> • Minimally Invasive Cochlear Implant (CI) Surgery-Experience in 100 Patients at 1Year Post-Operatively - Mohamed Alshehabi • Comparing the Hearing Outcomes between Teflon and Stainless Steel in Patients Undergoing Stapes Surgery – Mohammad Suliman Halawani • Comparative Study of Management of Otitis Media with Effusion by Adenoidectomy and Myringotomy With & Without Tympanostomy tube Insertion – Wasam Abbas Abdalhsen Albu-salih • Factors Affecting Auditory Nerve Response in Cochlear Implant Users Article Type: Research Article – Hassan Haidar Ahmad • Generation of Inner Ear Cell types from Human Foetal Inner Ear Stem cells – Amir Gorguy Attalla Mina • Candidacy of cochlear implantation for Pediatric Prelingual Patient - Ahmed Abbas Taher Shlaka • Sensorineural Hearing Loss in Sickle Cell Disease (SCD) Prospective Study from Oman - Ahmed Khalfan Salim Al Abri
17:30	Close

NECK DISSECTION IN DIFFERENTIATED THYROID CANCER: INDICATIONS AND TECHNIQUES

Recurrence of regional cervical lymph nodes in patients with differentiated thyroid carcinoma is not uncommon, and is an important factor affecting the quality of life. If pathologic nodes are identified in either the central or lateral neck they should be removed at the initial operation. Eliminating all disease remains elusive and the prognostic significance of cervical disease persistence and recurrence is still unknown. Patients with cervical metastasis are at substantial risk of regional recurrence, necessitating repeat surgery. The role of prophylactic central neck dissection remains controversial, and the risks of this procedure may outweigh the benefits. However, certain high-risk patients may benefit from a prophylactic central neck dissection. The risk factors for regional recurrence, including large tumor size, presence of extrathyroid spread and high T stage may determine the selection of neck dissection. The controversies regarding the type of neck dissection in managing thyroid cancer is discussed and new classification of neck dissection is highlighted. Discussion will be based on interesting thyroid cancer patients that we have managed in our head and neck setting of Universiti Sains Malaysia hospital.

Author's contact:

Assoc Prof Dr Baharudin Abdullah

Department of Otorhinolaryngology - Head and Neck Surgery,
School of Medical Sciences,
Universiti Sains Malaysia,
16150 Kubang Kerian,
Kelantan, Malaysia.
Tel: +6097676416
Fax: +6097676424
HP: +60139825050
Email: baharudin@kb.usm.my

Appreciation: Travel Grant Provided By Universiti Sains Malaysia



Neck Dissection In Differentiated Thyroid Cancer: Indications & Techniques

ASSOCIATE PROFESSOR
DR BAHARUDIN ABDULLAH
Consultant ORL-Head and Neck Surgeon

Malaysia



Indications for Neck Dissection

- Evidence of lateral cervical node metastases
- Significant positive nodes during central neck dissection (frozen section)
- Evidence of tumour invading adjacent muscles

Why neck dissection?

- Multiple level metastases
- Skip metastases
- Extracapsular spread
- Limit use of radioiodine ablation dose
- Reduces incidence of loco-regional spread

Why neck dissection?

- Thyroid carcinoma metastasizes in central (pre- and paratracheal) and lateral (jugulo-carotid, supraclavicular) neck lymph nodes.
- Lymph node metastases:
 - 1) PTC 30% - 80%, up to 95% in children.
 - 2) FTC 20%.
 - 3) Medullary thyroid carcinoma (MTC) 70% - 100%.

Grebe SKG et al. Surg Oncol Clin North Am 1996;5:43-63.

Why neck dissection?

- Lymph node metastases are associated with high risk of loco-regional recurrence and distant metastases.
- Gross lymph node metastases in the neck, as well as bilateral and mediastinal metastases significantly decrease survival rate in patients with DTC.

Literature Review

- An extensive body of literature showed improved outcome with neck dissection
- Attie JN (1988), in a series of 313 neck dissections for thyroid carcinoma, only three patients with papillary or follicular carcinoma, which was resectable, treated by thyroidectomy and modified neck dissection died of disease (*Int J Cancer Clin Oncol* 1988; 24:213-24).
- Noguchi S et al (1998) noted modified radical neck dissection improves prognosis in a retrospective cohort study of 2966 patients curatively treated for papillary thyroid carcinoma (*Ann Surg* 1998; 127:276-80).

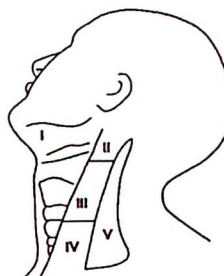
Literature Review

- Limited neck dissection and disease burden are associated with the highest rates of cervical recurrence in regional metastatic PTC.
- Comprehensive functional neck dissection would seem to offer the patient the best opportunity for control of cervical metastasis.
- Neck dissection of the compartments in which pathologic nodes were detected (central, lateral, or both) should then be undertaken at the time of initial thyroidectomy.
- Patients with cervical metastasis are at substantial risk of regional recurrence, necessitating repeat surgery.

Laryngoscope. 2008 Dec;118(12):2161-5.

Papillary thyroid cancer: **controversies** in the management of neck metastasis. Davidson HC, Park BJ, Johnson JT.

Cervical nodes group



- **Region VI:**
 - Anterior compartment, lymph nodes surrounding the midline visceral structures that extend from the hyoid bone superiorly to the suprasternal notch inferiorly
 - The lateral boundary is the medial border of the carotid sheath
 - Perithyroid, paratracheal, and lymph nodes around the recurrent laryngeal nerve

TNM Staging

T1: <1 cm
T2: 1-4 cm
T3: > 4 cm, limited to thyroid
T4a: tumor of any size, beyond capsule: larynx, trachea, esophagus, recurrent laryngeal nerve
T4b: prevertebral fascia or encases carotid artery or mediastinal vessels

N0: No regional lymph node
N1: Regional lymph node (central compartment, lateral cervical, and upper mediastinal lymph nodes)
N1a: to level VI (pretracheal, paratracheal, and prelaryngeal/ Delphian lymph nodes)
N1b: to unilateral or bilateral or contralateral cervical or superior mediastinal lymph nodes

M0: No distant metastasis
M1: Distant metastasis

Neck dissection

- Selective
- Modified Radical
- Radical
- Extended radical

Selective Neck Dissection

SOH
Ext SOH
Lateral
Posterolateral
Anterior/central
Superior mediastinum

Academy's Committee for Head & Neck Surgery & Oncology

Neck dissection

PROPOSAL FOR A RATIONAL CLASSIFICATION OF NECK DISSECTIONS

Anna Perillo, MD, DLO, DFACC, FRCS(Ed) and hominem, FRCS (Eng, Glasg, Ir) ad eundem, FOSACS ad eundem, FRCORL, FRCPhth, FASCR, IFCAP, K. Thomas Robbins, MD, FRCS, J. Justin P. Shah, MD, PhD (Hon), MS, FRCS(Ed), FRACS (New, FOSACS, J. James E. Modine, MD, Carl E. Shiver, MD, Shrikant Al-Tamimi, MD, Johannes J. Fagan, MSc, PhD, FCS (SA), MSc, Vorish Patel, MS, FRCS (ORL-HNS), Robert P. Takis, MD, PhD, Carol R. Bradford, MD, Kenneth Q. Denney, MD, JD, FCAP, Sandra J. Storer, MD, Randall S. Weber, MD, Patrick J. Bradley, MD, DCh, BAQ, BAO, DCh, MBA, FRCS (Ed, Eng, Ir), FRCORL, FRCPhth, FRACS (Hon), Carlos Suarez, MD, PhD, C. René Loewens, MD, PhD, H. Hakan Coskun, MD, Karen T. Puumen, MD, Ashok R. Shukla, MD, Ramon de Bree, MD, PhD, Dana M. Hariri, MD, PhD, M. Hakan Halilovic, Jr, MD, Juan P. Rodriguez, MD, PhD, Marc J. Hammel, MD, Avi Khalil, MD, Johannes A. Langendijk, MD, PhD, Randall P. Owen, MD, MD, Alvaro Ramakrishna, MD, MSc, PhD, Patrick J. Storer, MD, PhD, Vincent Vander Pooten, MD, PhD, Jochem A. Witter, MD, Stanislav Blah, MD, PhD, Julie A. Woolgar, FRCPhth, PhD, Peter Zbánek, MD, Jan Deltas, MD, PhD, FRCR, Benedikt J. Forst, MD, Eric M. Genden, MD, Yusef P. Tahir, MD, Michael Strome, MD, MS, Jesus Herrero Gonzalez Bolera, MD, Jan Olafsson, MD, Lutz P. Kowalewski, MD, PhD, Jon D. Holmes, DMD, MD, Yasuo Hida, MD, PhD, Alessandra Rinaldo, MD, FRCS(Ed) and hominem, FRCS (Eng, Ir) ad eundem, FRCORL.

Published in: Rational Classification of Neck Dissections

HEAD & NECK 2009; 11: 102-104

Neck dissection

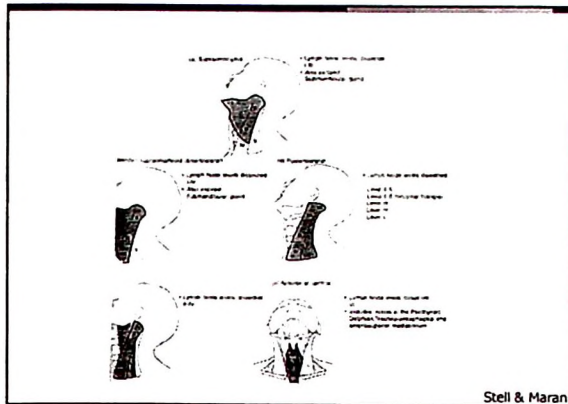
Neck 1: Central compartment, anterior to the thyroid gland, extending from the hyoid bone superiorly to the suprasternal notch inferiorly. The lateral boundary is the medial border of the carotid sheath.	Neck 2: Lateral compartment, extending from the hyoid bone superiorly to the suprasternal notch inferiorly. The lateral boundary is the medial border of the carotid sheath.
Neck 1a: to level VI (pretracheal, paratracheal, and prelaryngeal/ Delphian lymph nodes)	Neck 2a: to level VI (pretracheal, paratracheal, and prelaryngeal/ Delphian lymph nodes)
Neck 1b: to unilateral or bilateral or contralateral cervical or superior mediastinal lymph nodes	Neck 2b: to unilateral or bilateral or contralateral cervical or superior mediastinal lymph nodes

Selective Neck Dissection

SOH
Ext SOH
Lateral
Posterolateral
Anterior/central
Superior mediastinum

Published in: Rational Classification of Neck Dissections

HEAD & NECK 2009; 11: 102-104

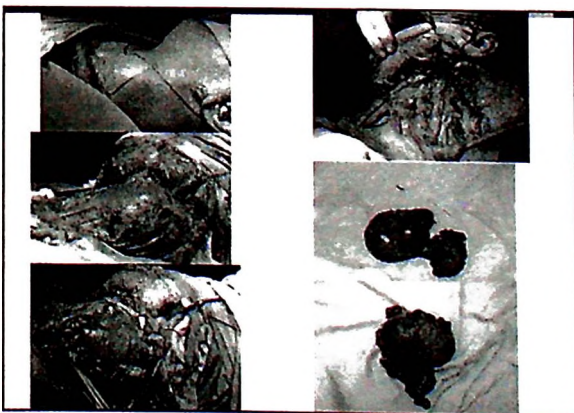
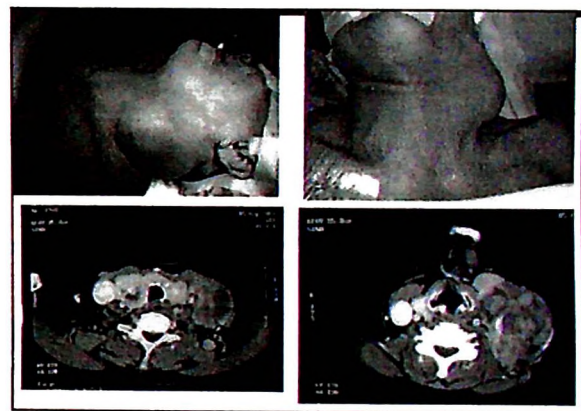


Modified Radical Neck Dissection

- ❑ Type 1: removal of LN level I-V and preserve spinal accessory nerve
- ❑ Type 2 :removal of LN level I-V ,preserve spinal accessory nerve and int jugular vein
- ❑ Type 3: removal of LN level I-V ,preserve spinal accessory nerve ,int jugular vein and SCM muscle

Modified Radical / Radical Neck Dissection

Treatment of differentiated thyroid cancer with palpable neck disease
 RND- indicated for significant palpable neck disease

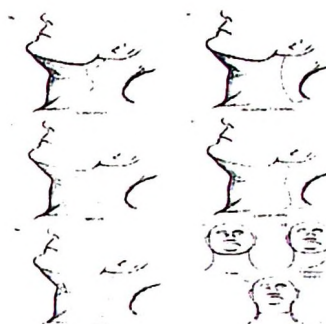


Steps

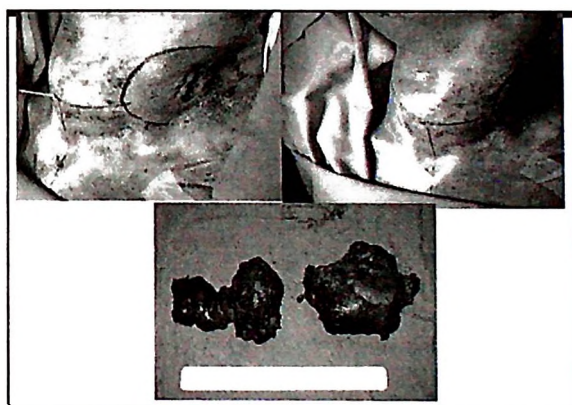
- ❑ Skin incision
- ❑ Raising flap
- ❑ Landmarks

Skin Incision

- ❑ A skin incision is made that optimizes exposure of the neck.
- ❑ Incisions that result in a trifurcation are less desirable because of the potential for distal flap necrosis and carotid artery exposure.



Stell & Maran



Landmarks

- ❑ 4 corners of consternation:
- ❑ 1) lower end of IJV
- ❑ 2) junction of lateral border of clavicle with lower edge of trapezius
- ❑ 3) upper end of IJV
- ❑ 4) submandibular triangle

Lower neck

Techniques

- ❑ Divide the lower end of SCM in corner 1
- ❑ Isolate and ligate the IJV
- ❑ Divide and retract the omohyoid muscle upwards
- ❑ Mobilize the fat pad overlying the prevertebral fascia
- ❑ Identify and preserve the brachial plexus and phrenic nerve

Procedures

- ❑ Skin Marking
- ❑ Skin Flap
- ❑ Cutting SCM
- ❑ Lower end of IJV ligation
- ❑ Spinal Accessory Nerve Identification

Upper neck

Techniques

- ❑ Divide the upper end of SCM in corner 3
- ❑ Retract the posterior belly of digastric upwards
- ❑ Identify and ligate the IJV
- ❑ Removal of submandibular gland and contents may not be necessary

Procedures

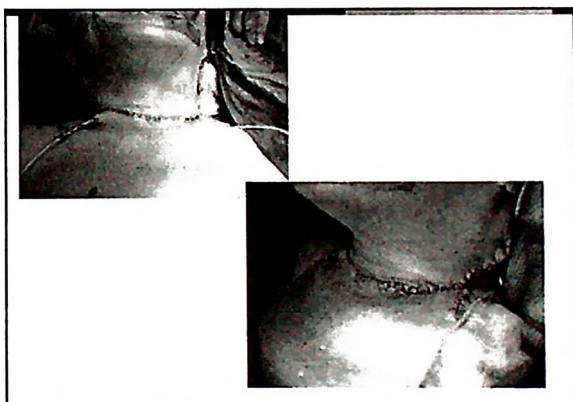
- ❑ Upper IJV ligation
- ❑ Post neck dissection
- ❑ Specimen

Thyroidectomy

- ▣ Lateral Thyroid Dissection
- ▣ Upper part of Thyroid Dissection
- ▣ Identification of RLN
- ▣ Post TT and RND
- ▣ Thyroid Specimen

Closure

- ▣ Two large drains placed posteriorly
- ▣ One drain on the opposite site for thyroid bed
- ▣ Should not cross the carotid sheath
- ▣ Check for bleeding or chylous leak
- ▣ Wound closed in two layers



Postop care

- ▣ Bleeding/Hematoma
- ▣ Excessive drainage-chylous leak
- ▣ Pneumothorax
- ▣ Wound Infection and breakdown

Summary

- ▣ Selective neck dissection for minimal neck disease
- ▣ Modified radical neck dissection for more advanced neck disease
- ▣ Submandibular gland/contents may be spared
- ▣ Use of frozen section is helpful
- ▣ Appropriate approach and type of surgery improves prognosis and avoid morbidity
- ▣ Dissection of central and lower third of jugular chain of neck lymph nodes is the integral part of thyroid cancer surgery together with thyroidectomy

Thank You!



9th ANNUAL MIDDLE EAST
UPDATE IN OTOLARYNGOLOGY
CONFERENCE & EXHIBITION
14-16 NOVEMBER 2012, DUBAI

Appreciation: Travel Grant Provided by Universiti Sains Malaysia