Future trend in Rhinology

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Rhinology is one of the ENT subspecialties which covers all nasal and paranasal sinus disorders including congenital, infection, trauma, tumours and other ailments. The most common diseases seen in Rhinology clinic are allergic rhinitis and rhinosinusitis with or without nasal polyp. The nature of the two diseases are chronic and frequently recurrent.

Pertaining to allergy, apart from allergic rhinitis which comprises a majority of our patients, allergic inflammation has now proved to be an underlying cause of many diseases such as chronic rhinosinusitis, nasal polyposis and otitis media with effusion. Numerous studies are continuously performed to characterize these patients on the basis of clinical parameters, infectious agents, inflammatory mechanisms (cytokines, chemokines), and remodeling process (growth factors). They will probably be further differentiated into small disease entities, which might be treated differently. Thus rhinologists have to keep up with rapid progresses in allergy and immunology research as well.

Concerning surgical rhinology, at present, there are advancements in imaging technology such as three-dimensional reconstruction software fusing CT and MR images, stereotactic navigation systems, intraoperative imaging technology plus high-powered instruments including microdebrider of different size and angulation and high-speed suction irrigation drills which have broaden the role of rhinosurgeon from chronic rhinosinusitis and nasal polyps to sinonasal tumours, ophthalmological disorders (dacryocystorhinostomy, decompression of thyroid orbitopathy, optic nerve decompression, repair of orbital floor fracture, etc.), pituitary tumours, CSF leak repair and anterior skull base. In near future, selective lesions used to manage through traditional craniotomies may be accessed via trans-sinonasal intracranial endoscopic routes. Hence, surgical skill has to be improved by surgical education and sinus surgery simulation which is another area developed by computer and imaging advancements.

In addition, in an era of evidence-based medicine, and considering that the frontier of Rhinology has overlapped with other specialties, evidence-based practice is highly recommended to protect physicians and patients alike. Healthcare authority in most developed countries today is aiming that studies involving surgical technique or medical treatment should provide information on health outcomes, quality of life and patients’ satisfaction rather than just clinical outcomes as in the past. Therefore, evidence-based practice guideline is urgently needed as well as appropriate fellowship training in Rhinology and Allergy for ENT specialist who would like to focus their future in this field.
Smell disorders or olfactory dysfunction can arise from a variety of causes and can profoundly affect patients’ quality of life. It most commonly occurs from upper respiratory tract infections (URI), trauma, and chronic rhinosinusitis (CRS). The sense of smell determines the flavor of food and beverages and is also an early warning system for the detection of environmental hazards. The loss or distortion of smell sensation can adversely influence food preference, food intake and appetite, resulting in disability and decreased quality of life.

Smell disorders are usually described by the following terms: anosmia (absence of smell), hyposmia (diminished sensitivity of smell), and dysosmia (distortion of normal smell). There are also various suborders of dysosmia such as phantosmia, cacosmia, and parosmia. Smell disorders are usually classified into 2 types:

1) Conductive or transport impairments from obstruction of nasal passages. Examples include CRS, common cold, allergic rhinitis, polyps, and tumors.

2) Sensorineural impairments from damage to olfactory neuroepithelium, olfactory pathway, and central nervous system. Examples include loss of smell after URI, head trauma, toxins, congenital disorders, dementia, Alzheimer’s disease, multiple sclerosis.

Smell and taste clinic of Siriraj Hospital was established in July 2002 for patients who have smell problems. Clinical assessment of these patients comprise of complete history taking and physical examination, nasal endoscopy, proper imaging, and olfactory testing. There are 2 general types of olfactory testing: psychophysical and electrophysiologic testing. Psychophysical tests are used for clinical evaluation of olfactory loss, whereas electrophysiologic tests are used primarily for research. Most psychophysical testing relies on measuring detection thresholds of a specific odorant (olfactory threshold tests) or the ability to identify multiple odors (odor identification tests). We have used phenyl ethyl alcohol (PEA) olfactory threshold test in our clinic. Results of PEA test were presented in Log scale and can differentiate severity of olfactory dysfunction into normosmia, hyposmia (mild, moderate, severe) and anosmia.

Preliminarily, medical records of 188 patients who attended smell and taste clinic of Siriraj Hospital from July 2002 to August 2005 were reviewed. One hundred and thirty-two patients were identified to have smell disorders (Male = 58, Female = 74). Anosmia (49.2%) and hyposmia (50.8%) were found equally. The most common cause of smell disorders was sinonasal disease (SND) (66.7%) followed by post traumatic head injury (12.1%), idiopathic (10.6%), post URI (6.8%), congenital (3%), and other causes (0.8%).

A systematic approach to evaluating the patients who have smell disorders, detailed knowledge about the etiology of olfactory disorders, clinical history and physical examination, and proper use of clinical tests of olfactory systems help to establish an appropriate diagnosis, detect and assess the degree of the sensory impairments, and guide the treatment if available.
โรคติดเชื้อระบบทางเดินหายใจ เป็นโรคที่พบบ่อยที่สุดในกลุ่มโรคติดเชื้อทั้งหมด และเป็นสาเหตุการตายอันดับสาม ของโรคติดเชื้อระบบทางเดินหายใจและโรคติดเชื้อตับในสมอง เป็นสาเหตุที่รายงานในประเทศ  trứngเริ่มการติดเชื้อไม่สามารถแก้ไขได้โดยง่าย เพราะจานจากโดยอนุญาตมีภูมิคุ้มกันที่ต้องยาอย่างยิ่ง ดังนั้นเตรียมกิจิก วางไม่ให้เชื้อโรคเข้าสู่ภายนอกแล้ว มีความจุการยับยั้งที่เกิดขึ้นหลังจากเชื้อหลุดเข้าสู่เนื้อเยื่อ เพื่อการกำจัดเชื้อออกไป ไม่ช่วยได้กิจิกภูมิคุ้มกันมีการทำงานเนื้อเยื่อและผิวหนังต่างเป็นบริเวณกว้างได้เชื้อมีกิจิก

การใช้ยาปฏิชีวนะฆ่าเชื้อแบคทีเรีย ได้พัฒนามานานกว่าครึ่่งศตวรรษ และกำลังถึงทางตันเพราะยาที่ใหม่ๆ ไม่ได้รักษาที่มีความรุนแรงกระดาษและในกลุ่มโรคติดเชื้อมีความรุนแรง ที่ต้องยาต้องใช้ยาต่างๆ มากยิ่งขึ้น การที่รักษาไม่หายอาจเป็นจากเชื้อตีฟ้า แต่หลายครั้งเชื้อไม่ได้รักษาไม่หาย ทำให้เป็นขึ้นที่ ความเข้าใจโรคเดิมการเกิดโรคติดเชื้อในแพร่กระจาย ไม่ว่าจะเป็นการติดเชื้ออย่างปัจจุบัน (Acute infection) หรือการติดเชื้อเรื้อรัง (Chronic infection) รวมทั้งการใช้ยาปฏิชีวนะโดยเฉพาะกลุ่ม Macrolide ที่ไม่เพียงแต่ได้ที่ยับยั้ง และฆ่าเชื้อติดเชื้อที่ไม่ยอมรับยาในการตอบสนองของภูมิคุ้มกันในภาวะวิกฤต ตลอดจนการหยุดการสร้างเนื้อเยื่อ (Slime) ของอิมมูนของเชื้อโรคที่เป็นส่วนสำคัญในระบบการต่อต้านการที่รักษาเชื้อ คุณภาพรู้รู้เชื้อระหว่าง เชื้อทำให้เกิดโรคติดเชื้อเรื้อรังต่างๆ เช่น Clarithromycin เป็นหนึ่งในกลุ่มยา Macrolide ที่ได้ผลและมาจาก Erythromycin ซึ่งจัดเป็นแบบของยาสุนัขและมีตัวอยู่ในเครื่องดื่มคาร์บอน (carbon) 14 อะตอม ที่มีข้อมูลการศึกษาเกี่ยวกับ Immunomodulation และ Biofilm disease ดังกล่าวเบื้องต้นมากที่สุด การนำเสนอวิธีการรักษา นี้ จะทำให้เข้าใจถึงการเกิดโรคติดเชื้อดังกล่าวระบบทางเดินหายใจ และการรักษาด้วยยา Macrolide ที่มีการตอบแทนเชื้อก่อเหตุ แต่ยังมีบทบาทอื่น ๆ ที่น่าสนใจอย่างยิ่ง
Role of conventional sinus surgery in today practice

แพทย์ฉัตรินท์ บุญจำจุก
โรงพยาบาลตา หู คอ จมูก

About 1600 A.D. Nathanael Highmore described and named "Sinus Highmore" which was changed later to "Maxillary Sinus". In the 17th Century, "Antrostomy" was described and the hole was large enough for the patient to insert a tube to irrigate the operated sinus. 1815 Caldwell in U.S.A. and Luc in France explained how to operate maxillary sinus through the mouth. Then maxillary sinuses could be operated by two ways. Killian was the leader for endonasal sinus surgery. Until recently Messerklinger in Graz, Austria showed the way to improve the sinus operation through the nose after Killian with illuminated scope. Not only the sinus but also the nasal septum and turbinates would be discussed.

REFERENCE


Pediatric Sinusitis: From Different Perspectives

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Pediatric sinusitis is a challenging disease for both pediatricians and otolaryngologists. Clinical presentation are sometimes subtle, especially in chronic sinusitis which may be diagnosed as allergic rhinitis or viral upper respiratory tract infection. Even if correctly diagnosed, there are problems of resistant antibiotics and recurrent diseases. Management should be started with careful history taking, including collection of 1-3 months retrospective history of clinical symptoms and previous treatment. Physical examination of the middle meatal area, nasopharynx and the adenoid can be done with the help of flexible or rigid endoscopy. Radiographic investigations are selected for confirmation and evaluation of extent of diseases, for preparation of surgery and for evaluation of intracranial or orbital complications. Allergic predisposition and immunological status of the patients should be evaluated. Environment and passive smoking in the household are among the contributing factors. The role of gastro-esophageal reflux in pediatric sinusitis is still controversial but has been documented in some article and should be looked into if the patients have complaints. New antibiotics have been added to the guidelines, including the cephalosporins, fluoroquinolones, macrolides and ketolides. Local nasal treatment is an important adjuvant treatment. Most of all, in pediatric patients, co-operation and understanding of the parents are the key to successful treatment.
Controversies in Management of Thyroid Diseases

Moderator

Pichit Sittitrai, M.D., Maharaj Nakorn Chiang Mai hospital

Panellists

Siripornchai Supanakorn, M.D., Chulalongkorn hospital
Pornake Apisan, M.D., Rajvithi hospital
Thumnu Art-smart, M.D., Srinagarin hospital
Decha Klachiew, M.D., Suppasithiprasong hospital

Thyroid nodule and well-differentiated thyroid cancer are common thyroid diseases found in otolaryngologic clinic. There are many controversial issues in management of these diseases including diagnostic evaluations, indications for surgery, management of incidentalomas of the thyroid, the role of frozen section, extent of thyroidectomy, management of neck nodes, the role of suppressive therapy, the use of radioactive iodine, and appropriate follow-up. This panel discussion will focus on the current concepts of management in panellists’ clinical experience.
More than half of patients who had the problem of acute facial nerve paralysis were diagnosed as Bell’s palsy; the idiopathic disease. However, the pathogenesis of this disease is unclear. So the physicians have to exclude the other causes of acute facial paralysis such as Ramsey Hunt syndrome, otitis media, and otologic tumor before making the definite diagnosis.

The etiology and pathogenesis of Bell’s palsy and other common causes of facial paralysis should be discussed and carefully considered.

Aim of the presentation is to present the review of etiology and how to evaluate the patient who has acute facial paralysis.
How to approach in case of acute facial nerve paralysis is still controversy especially about its causes, the pathogenesis and the regenerative power of the facial nerve. The electro diagnosis for the prognosis of facial nerve will be discussed about its principles, when and how to use of it. The pros & cons in the surgical decompression has been discussed related to the principle of its pathogenesis and the result of evaluation.
Management of Acute Facial Nerve Paralysis: Controversy and recommendation

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The pathway of the facial nerve is long and relatively convoluted, and so there are a number of causes that may result in acute facial nerve paralysis. The common causes are Bell’s palsy, an idiopathic disease that may only be diagnosed by exclusion, following by trauma, otitis media, herpes infection and tumor.

Several treatments and rationales among surgery, steroids, antibiotics and antivirals will be discussed. However, the varieties of adjuvant as herb, vasodilators, acupuncture, vitamin supplements, botulinum toxin, electrical stimulation and facial massage will be included in the presentation. Also, an 15-year-experienced treatments in Maharaj Nakorn Chiang Mai Hospital will be presented comparing to the result from aboard.

Goal of the presentation is to simplify and recommend some reasonable decision in implementation among medication, surgical intervention and adjuvant therapy.
Role of Otolaryngologist in Sleep Medicine and How to Set up Service in ENT Department

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Sleep Medicine is a multi-disciplinary specialty. Today’s major players in sleep medicine are the American Academy of Sleep Medicine and the professional societies including pulmonary medicine, neurology, otolaryngology, psychiatry, and pediatrics. Sleep medicine is beginning to emerge to other related specialty societies such as cardiology, bariatric surgery, anesthesia and even Academy of Dental Sleep Medicine. In Thailand, there also has been a sleep research society which will be the host of the second World Congress of Sleep medicine in 2007.

Since sleep disordered breathing (SDB) is the most prominent among sleep disorders with prevalence of more than 10 % in general population and making up about 80 % of all patients in sleep disorder centers. Traditionally, otolaryngologists treated patients with SDB by tracheostomy, adenotonsillectomy and uvulopalatopharyngoplasty. Even though, in the last decades, surgical therapy gained popularity and high expectations, the common subsequent failures have made the surgical therapy in sleep apnea disillusioned by many patients as well as other medical specialties. During the time, nonsurgical treatments (such as CPAP and oral appliances) globally flourished.

Despite the declining enthusiasm for sleep surgery, there are still advance technology and new developments in nasal, pharyngeal, tongue base, and maxillomandibular advancement procedures. Otolaryngology may need to secure its role in the eyes of patients and other specialties involving in sleep medicine. This effort would mandates approaches from multiple directions such as increasing the involvement the management of this major sleep disorder, producing and disseminating the evidence of benefit otolaryngologists provide, demonstrating the knowledge and ability in the emerging sleep medicine arenas to other medical colleagues, and training otolaryngologists about sleep medicine, which in the next decade may involve most university hospitals where medical students and the majority of residents are first exposed to this subspecialty. The American Board of Otolaryngology has recognized its importance and recently decided to offer the certification for the American Board of Sleep Medicine examination as a new medical subspecialty.

This miniseminar will give a brief overview of sleep medicine, the reason why we need to participate in sleep medicine society, the role of otolaryngologist in sleep medicine and how to set up the service in ENT department. Some discussion may be available.
Sleep is essential for life and to overall health. Every dentist, regardless his or her specialty, may have a potential role in the management of patients with sleep disorders by identifying, recommending, referring or participating in the overall management. The treatment of sleep apnea may be more successful, both in efficacy and compliance, if dentists, Cranio-Maxillofacial Surgeons and sleep specialists collaborate closely.

In the February 2006 issue of the journal SLEEP, the American Academy of Sleep Medicine published guidelines that identify oral appliance therapy as an effective non-surgical treatment for obstructive sleep apnea, particularly for mild and moderate cases. Surgical interventions have also been indicated for more severe cases. As suggested by the new guidelines, dentists and cranio-maxillofacial surgeons are one of many key components in the multidisciplinary team management of sleep disordered breathing (SDB).

The presentation is a timely review of relevant clinical topics and offers a comprehensive background in dental sleep medicine, oral appliance therapy, and various cranio-maxillofacial surgical techniques for the treatment of SDB.
Rhinoplasty in Thailand differs from the western world. We usually have flat nasal dorsum, bulbous tip and wide ala base. Augmentation rhinoplasty is mostly performed however reduction rhinoplasty is the most common procedure done in the western people.

In this symposium, the speakers will present their rhinoplasty techniques when they confront to different kinds of nose. At the beginning the moderator will present you the overall concepts of beauty, preoperative evaluations and various approaches. Follows, 3 or 4 case demonstration are presented by each speakers with discussion.
A deviated nose is one of the most popular problems in patients who need to do rhinoplasty. A nose may be deviated internally, externally or combined type. The defect may be purely bony, purely cartilaginous or both. The causes may be from congenital developmental defect, trauma or iatrogenic from rhinoplasty. When nasal bone are fractured from trauma, it may caused deviated nose from bony displacement, lateral angulation or comminution. There are many causes that cause iatrogenic deviated nose which include 1. asymmetric hump removal, 2. poorly deformed osteotomies, 3. disarticulation of the upper lateral cartilage from their attachment of the nasal bones, 4. failure to correct an underlying deviation bony or cartilaginous septum, 5. faulty tip surgery, 6. malpositioned sutures, 7. improperly applied nasal dressings and 8. malposition of silicone implant. However, deviated nose can be devided into 4 types according to aesthetic aspects: 1. convex deviated nose, 2. deviated nose with straight dorsum, 3. deviated nose with a saddle deformity, and deviated nose with silicone implant malposition. How to correct deviated nose in different types will be presented.
ปลายจมูก (nasal tip) เป็นจุดสำคัญที่ทำให้จมูกดูโดดเด่นและทำให้จมูกดูมีชีวิตร้อน มีส่วนช่วยสะท้อนอารมณ์บุคคลภาพของใบหน้าได้

องค์ประกอบที่ทำให้ปลายจมูกดูสวยงามหรือไม่เกิดขึ้นอยู่กับ
1. ความยื่น (projection)
2. ความมนูน (lobule formation)

โดยธรรมชาติของปลายจมูกที่มีความสวยงามดังกล่าวความยื่นและกิ่งก้าน (relatively) กันไปจากกิ่งก้าน ส่วนความมันมนูนของมนูนเกิดจากการจัดตัว (formation) ของ tip cartilage ที่ดี (well form) แต่พบว่าปลายจมูกที่สวยงามของคนไทยส่วนใหญ่ไม่ได้เกิดจากการจัดตัวที่ดีของ tip cartilage แต่มี fibroelastic tissue ที่จัดตัวเป็นรูปปลายจมูกที่มันมนูน

โดยทั่วไปการแก้ไขปลายจมูกให้ดูยื่นมากขึ้นและนมันมนูนขึ้นมาจะใช้ silicone ที่เป็นส่วนต่อจาก silicone ส่วนเสริมส่วนจมูก ซึ่งเป็นการเปลี่ยนการที่ใช้ไม่ได้ไปปลายจมูกที่มีรูจักกิ่งก้าน ได้แก่ รายที่มีปลายจมูกเล็ก (small tip) ปลายจมูกแบน (flat tip) หรือปลายจมูกรูม (parrot tip) การใช้ autograft ซึ่งเป็นวิธีการลดความเสี่ยงที่จะเกิด tip atrophy และ tip perforation

การใช้ nasal ala tissue เป็น free autograft เป็นวิธีการเลือกหนึ่งที่มีความปลอดภัยที่จะนำมาเสนอต่อไป