香 港 耳 鼻 喉 科 醫 學 院

The Hong Kong College of Otorhinolaryngologists

Annual Scientific Meeting 2013

Saturday, November 23, 2013

Pao Yue Kong Auditorium, Ground Floor
Hong Kong Academy of Medicine Jockey Club Building
99 Wong Chuk Hang Road, Aberdeen, Hong Kong

PROGRAMME & ABSTRACT BOOKLET

THE HONG KONG COLLEGE OF OTORHINOLARYNGOLOGISTS

PROGRAMME

1245 – 1715 Annual Scientific Meeting

12:15 – 12:45 **Registration**

12:45 – 16:00 **Trainee Research Presentation Competition 2013**

12:45 – 13:00 ***Functional analysis of the vestibular system in adolescent idiopathic scoliosis*** **A1**
Dr Wai-Tsz CHANG
ENT, New Territories East Cluster, Hospital Authority

13:00 – 13:20 ***Management of Sialorrhoea In Children – Our Experience in Hong Kong*** **A2**
Dr Jackie Mei-Ki CHEUNG
ENT, New Territories East Cluster, Hospital Authority

13:20 – 13:35 ***Driving Performance in Drivers with Obstructive Sleep Apnoea Syndrome: a Prospective Study*** **A3**
Dr Ryan Hung-Wai CHO
ENT, Kowloon East Cluster, Hospital Authority

13:35 – 13:55 ***Office remedial incisionless myringoplasty with preserved temporalis fascia – A prospective study*** **A4**
Dr Peter Ka-Chung KWAN
ENT, Hong Kong East Cluster, Hospital Authority

13:55 – 14:10 ***The oncogenic role of microRNA-138 in undifferentiated nasopharyngeal carcinoma*** **A5**
Dr Jacky Wai-Kei LAM
ENT, Hong Kong West Cluster, Hospital Authority

14:10 – 14:30 ***Comparison between transtympanic(TT) and tympanomeatal flap elevation(TME) approaches in myringoplasty*** **A6**
Dr Felix Tak-Yin LAU
ENT, New Territories West Cluster, Hospital Authority

	14:30 – 14:45	**Tea Break**	
	14:45 – 15:00	***The effectiveness of the soft palate radiofrequency tissue ablation in patients with bothersome snoring*** ***Dr Vincent Kwok-Hung LEUNG*** *ENT, New Territories West Cluster, Hospital Authority*	**A7**
	15:00 – 15:20	***OSA Patients' Preference and compliance in CPAP Treatment*** ***Dr Chi-Keung MAK*** *ENT, New Territories East Cluster, Hospital Authority*	**A8**
	15:20 – 15:35	***Clinical outcome of bilateral cochlear implant in adults*** ***Dr Jacky Ka-Fai WONG*** *ENT, Kowloon Central Cluster, Hospital Authority*	**A9**
	15:35 – 15:55	***Head and Neck Squamous Cell Carcinoma in Hong Kong Octogenarians*** ***Dr Sylvia Suet-Ying YU*** *ENT, Hong Kong West Cluster, Hospital Authority*	**A10**
15:55 – 16:10	**Presentation by the winner of Thomas Cheung Fund 2012** ***By Dr Jonathan Kai-Yum LAU*** *ENT, Hong Kong West Cluster, Hospital Authority*		
16:10 – 16:45	**Tea Break**		
16:45 – 17:15	**CME Lecture** ***Training of the new ENT Surgeons in the New Era*** ***Guest Speaker: Mr Andrew C SWIFT*** *Consultant ENT Surgeon & Rhinologist* *Aintree University Hospitals NHS Trust* ***Chairman:*** ***Dr Fu-Man TONG*** *Censor-in-Chief* *The Hong Kong College of Otorhinolaryngologists*		
17:15	**End of Programme**		

Board of Adjudicators (2013)

Chief Adjudicator:	**Dr Albert Wai-Sing LUK** *Private ENT Specialist*
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	Mr Andrew C SWIFT *Consultant ENT Surgeon and Rhinologist* *Aintree University Hospitals* *Foundation NHS Trust*

A1

Functional analysis of the vestibular system in adolescent idiopathic scoliosis

Dr Wai-Tsz CHANG
ENT, New Territories East Cluster, Hospital Authority

Study Design:
A case-control study of the vestibular contribution in balance control in adolescents with idiopathic scoliosis.

Objective:
To determine the contribution of vestibular system in adolescent idiopathic scoliosis (AIS).

Summary of Background Data:
Balance control requires the contribution of somatosensory, visual, and vestibular inputs. Previous study showed the vestibular system in AIS subjects were of significant morphoanatomical difference between those normal subjects. No previous formal study to evaluate he association of vestibular function in AIS subjects.

Methods:
A total of 134 female patents with AIS and 34 normal subjects (mean age: 14.2+/-1.7years) were included in the study. They were evaluated with posturography (i.e., the sensory organization test). 83 of the patient (60 AIS group and 23 control group) were further evaluated with other vestibular analysis including Pure tone audiogram (PTA); Electronystagmography (ENG) and Vestibular evoked myogenic potential (VEMP).

Results:
Posturography was measured on all subjects under normal, reduced, or conflicting somatosensory, visual, and vestibular conditions. Independent sample T-Test indicated significantly lower score in condition 6(vestibular system as the only available cues for balance) (P=0.045) in the AIS group when compared to control group. PTA was normal in all subjects. The proportion of abnormal ENG in AIS group were 20% where only 9% in normal group with 2-sided exact significance of 0.327. The proportion of abnormal VEMP in AIS group were 20% and only 4% in normal group. The 2-sided exact significance is 0.1. It was statistically insignificant but definitely showed a trend of more abnormal vestibular system in the AIS group.

Conclusions:
The AIS group has a significantly poorer performance in posturography test specifically condition 6. Small pilot study also showed trends of abnormal ENG and VEMP study. This suggested vestibular function of the AIS group is inferior to the normal subject. Results echoed the previous morphoanatomical study of the vestibular system.

A2

MANAGEMENT OF SIALORRHOEA IN CHILDREN — OUR EXPERIENCE IN HONG KONG

Dr Jackie Mei-Ki CHEUNG
ENT, New Territories East Cluster, Hospital Authority

Introduction:
Sialorrhoea (drooling) remains a stigmatizing and distressing condition in many children with neurological problems, compounding the burden on caregivers. A multidisciplinary clinic has been established in two hospitals in Hong Kong since 2003 to provide a comprehensive treatment programme for these patients. Three main treatment modalities – bilateral submandibular duct translocation (SDT), Botulinum toxin injection and oromotor training are offered. The purpose of this prospective study is to evaluate the outcome and share the management experience in Hong Kong.

Method:
A total of 36 patients aged 2 to 19 with significant drooling, were assessed in the clinic and offered treatment between 2003 and 2013. The treatment modality was chosen based on the patient's drooling severity and clinical condition as well as parental preference. 12 patients were treated by surgery, 9 by botox injection and 15 by oromotor training respectively. Objective and subjective baseline measures including Visual Analogue Scale (VAS), Drooling Quotient (DQ), modified Thomas-Stonell drooling scale (TS) and Suskind questionnaires were collected pre- and post-treatment and analyzed by statistical methods.

Results:
All 3 groups of patients have shown remarkable improvement in subjective and objective outcome measures from baseline to the latest follow-up (minimum 12 months). In particular, the surgery group has shown statistically significant change in all parameters ($p < 0.05$) within the shortest period of time (i.e. 2 weeks post-operatively) and effect has been sustainable. There was no surgical related mortality or long term morbidity.

Conclusion:
Sialorrhoea is a treatable condition. Submandibular duct transposition offers a safe, one-off surgical treatment with prompt effect and good long-term success rate.

A3

Driving Performance in Drivers with Obstructive Sleep Apnoea Syndrome: a Prospective Study

Dr Ryan Hung-Wai CHO
ENT, Kowloon East Cluster, Hospital Authority

Objective:
Obstructive sleep apnoea syndrome (OSAS) is a common condition with disturbed sleep leading to daytime sleepiness. The prevalence of OSAS in Hong Kong is 4% for male and 2% for female, which gives an estimate of 13000 private car drivers with OSAS in Hong Kong. Driving is a complex task requiring attention, alertness, decision making & appropriate response. Car crashes are more likely to happen because of inattention. Drivers with OSAS are shown to have increased car crash rate (Odds ratio 1.21-4.89)[1] . But how to identify those who are at risk remains difficult.

In this study, we aim to identify the risk factors of poor driving performance, which may lead to increased car accident, in patients with OSAS by using a high-quality driving simulator.

Method:
Prospective study of driving performance of patients with severe OSAS and normal subjects by using a driving simulator. The severity of OSAS was correlated with the driving performance, for risk stratification analysis.

Result:
In January 2013, 8 patients with severe OSAS and 10 normal subjects with a valid driving license and at least weekly driving experience were recruited in the study. Respiratory Disturbance Index (RDI) was 61.9 ± 16.64 for OSAS patients; 8.88 ± 5.26 for normal subjects ($p<0.001$). Epworth Sleepiness Scale (ESS) was 12 ± 2.39 for OSAS patients; 7.7 ± 3.13 for normal subjects ($p=0.006$). By Integrated Lane Assist System, OSAS patients triggered significant more Lane Departure Warning per minute than normal subjects (5.50 ± 1.48 vs 3.88 ± 0.83; $p=0.009$).

Conclusion:
Patients with severe OSAS are more likely to have driving lane deviation as shown in the current study, which reflects that severe OSAS is a potential risk factor for poor driving performance. Measures are needed to implemented to address this problem and further study is required to stratify the risk and analyse the treatment benefit.

[1]Tregear S, Reston J, Schoelles K, Phillips B. Obstructive sleep apnea and risk of motor vehicle crash: systematic review and meta-analysis. J Clin Sleep Med 2009; 5(6) :573-581

A4

Office remedial incisionless myringoplasty with preserved temporalis fascia – A prospective study

Dr Peter Ka-Chung KWAN
ENT, Hong Kong East Cluster, Hospital Authority

Objective:
To determine the effectiveness of office remedial incisionless myringoplasty (ORIM) using patient's own preserved temporalis fascia to repair early post-myringoplasty graft perforation.

Study design:
Prospective study

Methods:
Patients with early post-myringoplasty graft perforation and preserved temporalis fascia who did not meet any of the exclusion criteria were recruited. All recruited patients underwent ORIM in the out-patient clinic and were discharged from the clinic after the procedure. They were followed up on a regular basis afterwards. Any adverse effects during and after ORIM were recorded. Successful case was defined as an intact tympanic membrane three months after the procedure.

Results:
Eight patients underwent ORIM during May 2011 to June 2013. All patients were discharged from the clinic after the procedure. One patient defaulted after the procedure and was excluded from final analysis. Four patients have an intact tympanic membrane after more than three months, resulting in a successful rate of 57%. No complication nor adverse reaction was reported.

Conclusion:
ORIM is a safe and feasible office procedure to repair early post-myringoplasty graft perforation and improve the overall successful rate of myringoplasty.

A5

The oncogenic role of microRNA-138 in undifferentiated nasopharyngeal carcinoma

Dr Jacky Wai-Kei LAM[1], Dr Yu-Wai CHAN[1], Dr Stanley Thian-Sze WONG

[1]Division of Otorhinolaryngology-Head and Neck Surgery, Department of Surgery, University of Hong Kong, Queen Mary Hospital, Hong Kong

Background/ Aim:

To evaluate the expression level of miR-138 in NPC tissue and to examine its potential oncogenic role in undifferentiated NPC cell line.

Methods:

We quantified the expression level of miR-138 in both NPC and peripheral blood with real-time quantitative polymerase chain reaction. For primary NPC, the expression level was compared with normal nasopharyngeal epithelia. For recurrent NPC, the microRNA level was compared with the paired normal mucosa counterparts obtained from the same patients.

We would also perform functional analysis and microarray analysis to study gene upregulation or downregulation on NPC HONE1 cell line transfected with miR-138 precursor after exposure to radiation.

Results:

In our cohort, cancer tissues samples were collected from 44 primary NPC and 29 recurrent NPC patients. In addition, plasma samples were collected from 22 primary NPC, 21 recurrent NPC and 17 normal individuals. Our data suggested that there was no difference in the miR-138 expression level in primary NPC tissue and normal nasopharyngeal tissue. Further functional analysis on the HONE1 cell line suggested that miR-138 overexpression could enhance NPC cell proliferation, migration and invasion. Staining with Acridine orange (AO) and phosphorylated H2AX (γH2AX) showed that miR-138 overexpression is associated with an enhanced response to radiation. With the use of high-throughput gene expression arrays, we observed that multiple cancer-related pathways were affected in miR-138 overexpressed NPC cells.

Conclusion:

Our results are concordant with other similar studies which suggested that miR-138 is an oncogenic microRNA. Further studies are warranted to explore the clinical use in diagnosis, prognosis and management of undifferentiated NPC.

A6

Comparison between transtympanic(TT) and tympanomeatal flap elevation(TME) approaches in myringoplasty

Dr Felix Tak-Yin LAU
ENT, New Territories West Cluster, Hospital Authority

Objectives:
To compare the results of transtympanic myringoplasty and the traditional tympanomeatal flap elevation(TME) myringoplasty. Potentially we want to demonstrate the transtympanic (TT) myringoplasty is a less traumatic approach yet equally effective for the repair of perforated TM.

Research design:
Prospective study

Subjects and methods:
Patients with small to medium size tympanic membrane (TM) perforation are recruited. One group of patients undergo the traditional tympanomeatal flap elevation (TME) approach. The other group undergo the transtympanic (TT) approach. Pain scores are recorded at immediate post-op and post-op day one. They will be followed up at 1 week, 4 weeks, 3 months and six months. PTA is performed at three to six months after the operation. SPSS version 19 is used for the statistical analysis. Categorical variance is analyzed with the fisher's exact test and continuous variables with the independent samples t-test.

Result:
33 patients aged 22-59 years old were recruited into the study. 15 underwent the traditional TM flap elevation (TME) approach and 17 underwent the transtympanic(TT) approach. 5 patients were excluded from the study. All operations were performed by the principle investigator understupervision by senior surgeons. The gender distribution in both groups is statistically insignificant. The mean age for the TME group is 45.8 years old and the mean age of the TT group is 45. It is statistically insignificant (p=0.24). There are 7 patients have small perforation and 4 patients with medium perforation in the TME group. There are 12 patients have small perforation and 3 patients have medium perforation in the TT group. There is no significant difference between the two groups (p=0.228). The mean operation time for the TME group is 73.4 (SD=14.4). The mean operation time for the TT group is 44.8 (SD=7.04). The TT group has a significant shorter operation time than the TME group (P=0.00).Only one post-op infection in the TT

group while no post-op infection in the TME group (p=1.0). The mean pain score immediate after the operation is 2.9 for the TME group and 3.2 for the TT group (P=0.785). The mean pain score in day one is 2.08 for the TME group while just 0.8 for the TT group (p=0.077). The mean PTA change is 7.77 for the TME group and 5.87 for the TT group (p=0.436). 1 patient in the TME group and 2 in the TT group reperforate respectively. It is statistically insignificant (p=1.0)

Conclusion:
The TT approach achieves a significantly shorter operation time and a similar graft success rate.

A7

The effectiveness of the soft palate radiofrequency tissue ablation in patients with bothersome snoring

Dr Vincent Kwok-Hung LEUNG
ENT, New Territories West Cluster, Hospital Authority

Abstract:
This study is to evaluate the effectiveness of the radiofrequency ablation to soft palate for patients with bothersome snoring. Patients reported with troublesome snoring and had previous polysomnography performed showing AHI less than 15 were recruited. Total of 22 patients were recruited in the study. All patients were assessed by general physical examinations, body mass index measurement, anterior rhinoscopy, flexible laryngoscopy, Epworth Sleepiness Scale (ESS) questionnaires. Bothersome of snoring was estimated by visual analogue scale (VAS) including the sound intensity of snoring according to bed partner, sleep quality of patients' bed partner. Score ranged from 0 to 10 for the symptom registrations. All patients were received radiofrequency tissue ablation to their soft palate. Pain, swallowing difficulty and speech difficulty during early post operative period was assessed by VAS. VAS score of sound intensity during snoring according to bed partner and sleep quality of patients' bed partner were reviewed six month after the treatment. Treatment results were assessed by comparing the pre-operative and post-operative VAS score of snoring and sleep quality. The procedure was well tolerated by all patients with an intra-operative VAS pain score of 6 (ranged from 2-10). VAS pain score one week after the procedure was 3.4. There were no major complications reported. One patient was found to have a perforation over the soft palate one month after the procedure and the perforation eventfully healed in 3 months time. Two patients attended the emergency department for poor pain control after the procedure and they were treated with analgesics and reassurance. Patients were followed up for at least 6 months after the procedure. Six month after the procedure, 81% of patients reported to have improvement in snoring. 72% of patients satisfied with the treatment result. For those patients with effective treatment results, 50% of patients did not complain of any recurrence of symptoms. 61.1% of those patients would consider revision surgery if symptoms recur. To conclude, soft palate radiofrequency tissue ablation is an effective treatment for snoring patients with no or mild OSAS. However, a careful selection of patients is needed before the procedures.

A8

OSA Patients' Preference and compliance in CPAP Treatment

Chi-Keung MAK[1], Dennis LEE[2], Victor James ABDULLAH[2], Charles Andrew VAN HASSELT[3]

[1]Department of Ear, Nose and Throat, Prince of Wales Hospital, Hong Kong
[2]Department of Ear, Nose and Throat, United Christian Hospital, Hong Kong
[3]Department of Otorhinolaryngology, Head and Neck Surgery, The Chinese University of Hong Kong, Hong Kong

Abstract:
Continuous positive airway pressure (CPAP) is the first-line treatment for patients with obstructive sleep apnea (OSA). Patient's mask preference is an important factor in CPAP acceptance and compliance.

Patients with OSA, who are not on CPAP, were recruited to try 4 masks in a randomized order. The trial period was one week for each.

Forty OSA patients (M:F = 30:10) with a mean BMI of 27.4 and RDI of 34.2 were recruited. Seventeen (43%) continued to the CPAP treatment for OSAS after the trial. Six of them chose A & five of them chose B for the CPAP mask. Both mask A & B achieved high satisfaction score and scored well in the mask comfortability. All the seventeen patients are still using now with a mean of 347 days after the study.

One thirds of patients who initially declined the use of CPAP for more than a year were convinced to use it after the 4-week trial. Within this group of ex-CPAP users, less than half of the patients selected the mask with the highest rank and scores. The selection of masks amongst the remaining patients is mixed. Proper trial of masks for a week at a time, according to our findings, helped in increasing the acceptance. The mask selection still remains on patients' own preference and is less related to the overall ranking.

It is concluded that proper trial of CPAP masks in patients' home setting improved the general compliance and acceptance of CPAP treatment in OSA patients.

A9

Clinical outcome of bilateral cochlear implant in adults

Dr Jacky Ka-Fai WONG
ENT, Kowloon Central Cluster, Hospital Authority

OBJECTIVE:
To assess the clinical outcome of bilateral cochlear implantation in adults with severe-to-profound hearing loss.

POPULATION:
Targeted cases are patient receiving second side cochlear implant in Queen Elizabeth Hospital since 2012. A total of 19 patients received bilateral cochlear implant up to June 2013. 9 of them were children (Age <18), 10 of them were adults. Adults received bilateral cochlear implant was included in the study.

STUDY DESIGN:
A retrospective study to elevate the clinical outcome of bilateral cochlear implantation by measuring the following parameters: Speech perception by measuring the everyday sentence recognition, openset sentence recognition in keyword and syllable, a questionnaire concerning health-related quality of life and sound localization. Both side of the cochlear implant of each patient were tested separately and then together.

RESULT:
The outcomes were analyzed with statistical software SPSS 20. Bilateral cochlear implant may have some improvement in Everyday Sentence Recognition comparing to single side cochlear implant ($p=0.089$ trend level significant with $p<0.1$). There is no significant improvement in Open Sentence Recognition in both keyword and syllable ($p>0.05$). Patient receiving bilateral cochlear implant enjoy better Quality of Life ($p=0.000003$) and orientation of sound after surgery ($p=0.002$).

Conclusion:
Bilateral cochlear provide excellent auditory result. It is a safe procedure with no complication encountered in our case series. Although the benefit of bilateral cochlear implant over single side cochlear implant maybe not demonstrated by speech perception, the ability of localization of sound is a merit. All of our patient enjoy a better quality of life.

A10

Head and Neck Squamous Cell Carcinoma in Hong Kong Octogenarians

Dr Sylvia Suet-Ying YU
ENT, Hong Kong West Cluster, Hospital Authority

Background and Objective:
Hong Kong is facing an aging population. Percentage of Hong Kong population above 80 years old increased from 2.2% to 3.8% between 2001 and 2011. In 1981, the expectations of life at birth were 72.3 and 78.5 years for male and female respectively. However, the corresponding figures rose to 80.5 and 86.7 years in 2011.These group of elderly patients would require special medical attention in the future. With regards to this trend, the management and outcome of patients with head and neck squamous cell carcinoma above 80 years old who were treated in a tertiary referral centre were analyzed.

Methods and Results:
Between 2008 and 2012, all patients above 80 years old who were newly diagnosed to suffer from squamous cell carcinoma of the upper aerodigestive tract were included. 39 patients were included (29 male and 10 female patients) and their mean age was 84.9. 41% of the primary tumours were in the larynx, 38.5% in the oral cavity, 12.8% in the oropharynx and 7.7% in the hypopharynx. For the 23 patients who underwent surgery with curative intent, the mean survival time was 31.5 months whereas for those received non-operative treatment, the mean survival time was 18 months. The post-operative 30-day mortality rate was zero.

Conclusion:
In selected group of patients, surgical treatment was well tolerated. Biological age should not be the sole determining factor whether curative therapy should be taken in the elderly patients.

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(In Alphabetical Order)

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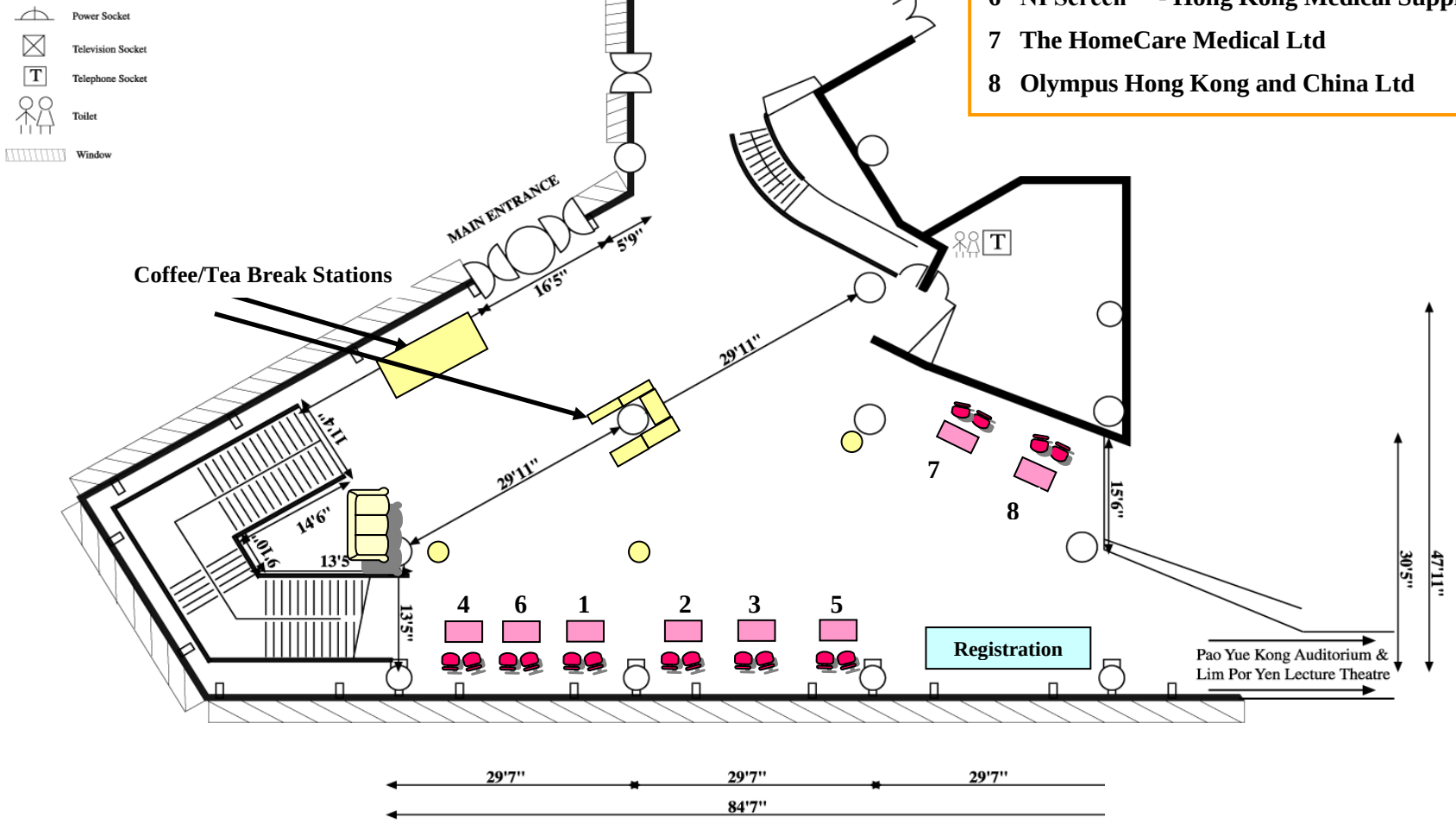

Remarks

○ small round tables