National Healthcare Group Annual Scientific Congress (ASC)
“Science, Medicine & Lifestyle – Impact on Tomorrow’s Health”

Scientific Papers Presentation
The 6th National Healthcare Group (NHG) Annual Scientific Congress (ASC) will be held from the 7 to 8 of November 2008 at the Suntec Singapore International Convention and Exhibition Centre. Themed “Science, Medicine & Lifestyle – Impact on Tomorrow’s Health”, the congress will emphasize on the importance of translating science into clinical practice while managing our lifestyle and environment to optimize health outcomes in the present and future.

The two-day congress will showcase over 450 scientific papers covering multidisciplinary perspectives, which will be shared by a total of 170 local and international speakers. It will also see the presentation of over 50 short-listed abstracts that were sent in by local and international healthcare professionals. The following short-listed abstracts are part of what will be presented at this year’s ASC.

Abstracts of Scientific Papers
[ Best Oral Competition – Medical Disciplines ]

1. ALEXANDRA HOSPITAL

Ethnic and Gender Differences in the Prevalence of Cardiovascular Risk Factors in Asymptomatic Young Adults Attending an Occupational Health Screening Program in Singapore


Cardiology Department, Alexandra Hospital, National University Heart Center, National University Hospital, University of Malaya, Malaysia

Aim: We aim to examine the prevalence of cardiovascular risk factors in asymptomatic young adults attending a healthcare screening program.

Methods: A cohort study involving 3512 members of Singapore’s Civil Defence Services were screened during occupational health screening program between April 2006 and November 2007 in our institution.

Results: The mean age was 37.8±3.8 years. 91.1% was male. There were 57.8% Chinese, 35.5% Malay; 6.7% Indian. The racial distribution was comparable to published demographic data. The existing diabetes and hypertension were 2.1% and 7.0% in the cohort. Severe hyperlipidemia (LDL > 4.1 mmol/l) and diabetes were found in 30% and 3.3% respectively. 40% of diabetics were newly diagnosed. Malays have higher incidence of obesity defined as BMI>25 (58.6%, p<0.001); diabetes (4.5%, p=0.009); hypertension (8.8%, p=0.013); and smoking (37.9% p<0.001). Indians have the worst lipid profile: 38.5% has LDL>4.1mmol/l, p<0.001 and 19.2% has HDL<1.0 mmol/l, p=0.004. Males have worse risk profiles of obesity (48.8% vs. 36.4% p<0.001 has BMI>25), hypertension (7.4% vs. 3.2% p=0.005), hyperlipidemia (30.6% vs. 14.9% p<0.001) and smoking (34.7% vs. 7% p<0.001) compared to females.
Conclusions: Asymptomatic young men suffer from more cardiovascular risk factors than women. Male Malays are more likely to be smokers, morbidly obese, hypertensive, having impaired fasting glucose and lipid profiles. Indians suffer from the worst cholesterol profiles. A tailored primary prevention program to target these risk groups is needed. A significant minority were found to have moderate to high cardiovascular risk and screening for silent myocardial ischemia may be indicated in these subjects.

* Presenting doctor

[ Best Oral Competition – Medical Disciplines ]

2. NATIONAL UNIVERSITY HOSPITAL

Development and Validation of a Simple Clinical Risk Score that Predicts Risk of Colorectal Neoplasm in Asymptomatic Subjects

K.G. YEOH1,2*, F. ZHU1, K.Y. HO1,2, J.L. KHOR2

1Department of Medicine, National University of Singapore and 2Department of Gastroenterology and Hepatology, National University Hospital.

Aim: To develop and validate a clinical risk score (RS) predictive of an individual’s risk for colorectal neoplasm in Asia.

Methods: Data from consecutive colonoscopies performed on asymptomatic subjects participating in screening for colorectal cancer were contributed from 17 centers in 11 Asian cities. Colorectal neoplasm was defined as carcinoma or advanced adenoma (adenoma with dysplasia or villous component or > 1cm). A RS was constructed using multivariate logistic regression. Validation was prospectively performed using an independent group of subjects.

Results: 860 asymptomatic adults undergoing screening colonoscopy constituted the development set. The mean age was 54±11.6 years, 471 (55%) were male and there were 9 ethnic groups (Chinese, Filipino, Indians, Indonesian, Japanese, Korean, Malay, Thai, Caucasian, and others). 168 (19.5%) had colorectal neoplasm comprising adenoma or carcinoma, 31 (3.6%) had advanced neoplasm (cancer or high grade dysplasia, or villous adenoma, or >1cm) and 9 (1.0%) had invasive cancer. Multivariate logistic regression showed that age >50 years, male gender, a positive family history and in a first-degree relative and smoking were significant risk factors for colorectal neoplasm, with odds ratio (95% CI) of 3.2 (1.3-7.4), 2.3 (1.1-4.8), 3.2(1.3-7.7) and 1.8 (0.9-3.4) respectively. Based on this, a clinical RS (0-8) comprising points for age (0-3), sex (male =1), family history (2) and smoking (2) was constructed. Validation of the RS was performed in an independent data set with 1892 subjects. Based on their RS, subjects were differentiated into average-risk (RS 0-1, n=539, 28.5%), moderate-risk (RS 2-3, 50.8%), high-risk (RS 4-5, 19.2%) and very high-risk (RS 6-8, 1.5%) groups. The relative risk of subjects in the high-risk and very high-risk group was 4.1 fold (95% CI 1.1-15.4) and 11.1 fold (95% CI 2.1-57) that of the average-risk group respectively.
Conclusion: We have developed and validated a clinical risk score for colorectal neoplasm using age, gender, family history and smoking, that predicts the risk of colorectal neoplasm in asymptomatic subjects.

* Presenting doctor

[ General News ]

3. INSTITUTE OF MENTAL HEALTH

A Study on the Executive Function System in Pathological Gamblers

T.K.M. LEE*, L. CHUAH

1Department of Addiction Medicine, Institute of Mental Health, 2Cognitive Neuroscience Laboratory, Singapore Health Service, Singapore

Aim: Pathological gambling is a disorder characterized by an enduring pattern of uncontrolled self-destructive behaviors despite clear negative consequences. Neurocognitive functions and impulsivity have important relevance for the understanding and treatment of pathological gambling. This study investigated whether there were differences in the executive function system and impulsivity level between pathological gamblers and normal controls from an Asian community in Singapore.

Methods: A matched case-control design was used. 14 non-treatment-seeking pathological gamblers and 14 normal controls were carefully selected and recruited from the community. The subjects were administered a battery of neuropsychological tasks measuring executive functions in the area of mental shifting, updating and monitoring, and inhibition of prepotent responses. Impulsivity was measured using the self-reported Eysenck Impulsivity Questionnaire.

Result: No significant group differences were found for all the tasks of executive functions. However, there were findings that suggest a trend towards poorer “Shifting” ability in pathological gamblers. Pathological gamblers were found to have a significantly higher level of impulsivity compared to normal controls.

Conclusion: The pathological gambling group did not evince any significant impairment, relative to normal controls, on any of the measures of executive functions. However, pathological gamblers were characterized by a high, self-reported, level of impulsivity. These findings suggest that psychosocial therapies may be readily provided to pathological gamblers without concern that their treatment and recovery will be hampered by impaired executive functioning. Treatment should also address impulsiveness in pathological gamblers, as elevated traits of impulsivity can negatively influence the course of the disorder.

* Presenting doctor
[ General News ]

[ Best Poster Competition ]

4. TAN TOCK SENG HOSPITAL

Efficacy of Ultrasound, Fine Needle Aspiration Cytology and Frozen Section in the Diagnosis of Thyroid Malignancies


General Surgery, Tan Tock Seng Hospital, Singapore

Aim: The aim of this study is to evaluate the efficacy of ultrasound, fine needle aspiration cytology (FNAC) and frozen section in the diagnosis of thyroid malignancies.

Methods: The medical records of all the patients who underwent thyroid surgery in Tan Tock Seng Hospital General Surgery Department from January 2005 to December 2007 were retrospectively reviewed using a standardized data collection template. Results of the ultrasounds, FNACs and frozen sections were compared with the final histological diagnosis.

Result: A total of 112 patients underwent thyroid surgery in the 3-year study period. Thyroid malignancy constituted 34 (30%) of all patients who underwent thyroid surgery. The most popular diagnostic tools used were ultrasound (81%), FNAC (69%) and frozen section (59%). The sensitivity of ultrasound, FNAC and frozen section were 41.4%, 86.4% and 68.8% respectively. FNAC was shown to be a superior diagnostic test in detecting malignancy compared to ultrasound (p=0.02). FNAC was able to pick up 53% of thyroid cancers missed by ultrasound. Frozen section was able to pick up 33% of thyroid cancers that were missed by both ultrasound and FNAC.

Conclusion: Ultrasound as a sole diagnostic test for thyroid nodules has limited value in ruling out malignancy. FNAC should form the mainstay of investigation for thyroid nodules as it has been shown to be more superior compared to ultrasound. A combination of ultrasound, FNAC and frozen section will improve the detection rate for malignancy.

* Presenting doctor

[ Event Details ]

Date: 7-8 November 2008
Venue: Suntec Singapore International Convention & Exhibition Centre
Website: http://www.asc.nhg.com.sg
Email: nhgasc@nhg.com.sg
Closing Date for Online Registration: 1 November 2008