



台灣生物精神醫學

Newsletter

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理事長的話

生物精神醫學的饗宴

轉眼擔任學會理事長已進入最後三個月，感謝學界前輩及理監事們的指導與全體會員的支持，會務推展順利。

過去一年的重要事件除了例行春季會年會，及會訊出版外，理監事會舉薦了對台灣生物精神醫學的發展最有貢獻的八位前輩，尊稱“台灣生物精神醫學的開拓與奠基者”：莊明哲教授、林信男教授、胡海國教授、張文和教授、沈武典教授、林克明教授、蘇東平教授及陸汝斌教授(依年齡排序)。在精神醫學學理混沌未明之時，幾位前輩的先知卓見，拓荒勇氣，與傑出成就，當在台灣生物精神醫學史上永垂不朽。

感謝教育委員會主委白雅美教授的策畫協調，學會秘書長吳冠毅醫師、副秘書長李正達醫師的積極聯系，「生物精神醫學系列叢書」第二輯「焦慮症新知」也在楊延光教授領導主編下，盛大出版。

專家院士制度亦在理監事會規畫下，正式確立。將在下半年能逐步上軌道。

今年的春季會我們持續與多個學會及學術團體合作，以精神健康聯合春季會為名，舉辦聯合會議。兩日活動人數分別達到130-140人次，感謝各位前輩同仁的踴躍參加，讓整個春季會圓滿落幕。

理事長 劉嘉逸

Repetitive Transcranial Stimulation in Reducing the Craving for Heroin

作者：林 皇 利

Objectives:

The overall goal of this study is to evaluate the efficacy of repetitive transcranial magnetic stimulation (rTMS) in reducing the craving for heroin in heroin addicts.

Methods:

This is a single-site, randomized sham control study with a double blind design. A total of twenty-one patients entering the Methadone Maintenance Clinic were recruited into this study. These subjects were meeting the DSM-IV criteria of current intravenous opioid dependence; 20-65 years old; stable methadone dosage; and Self-report of heroin use and craving for heroin in past one month with positive urinalysis. Subjects were randomly assigned to two groups; rTMS on their left dorsolateroprefrontal cortex (DLPFC) and sham rTMS treatment. Intermittent theta burst stimulation (iTBS) of rTMS to the DLPFC every 5 minutes for 3 times each day and each session of rTMS treatment will be performed on daily basis for consecutive 5 days with a total of 5 sessions.. The stimulus intensity we use for the stimulation is 80% of active motor threshold. All the subjects will be followed up to 8 weeks. During the follow-up, each subject will be assessed every week using the following tools, including 100-mm visual analog scale (VAS) for self-report craving for opiate; Severity of Dependence Scale-Chinese version (SDS), Random urine screening for morphine and amphetamine will also be performed every two weeks.

Results

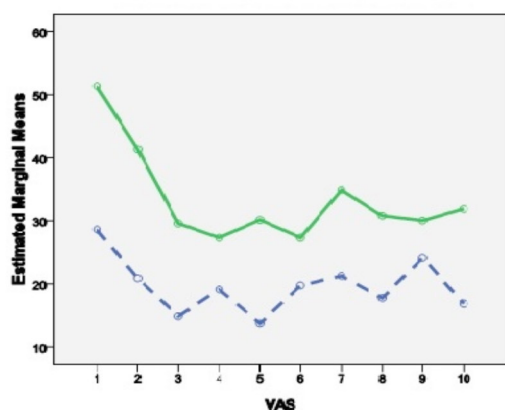
There were 11 real rTMS group subjects and 10 sham rTMS group subjects had completed this protocol. Real rTMS group VAS and SDS score are significantly decreased during 8 weeks follow up after rTMS. Urine positive rate (5 random urine test in 8 weeks) of heroin and amphetamine in real rTMS group were less than sham group, however no significant difference.

Conclusions

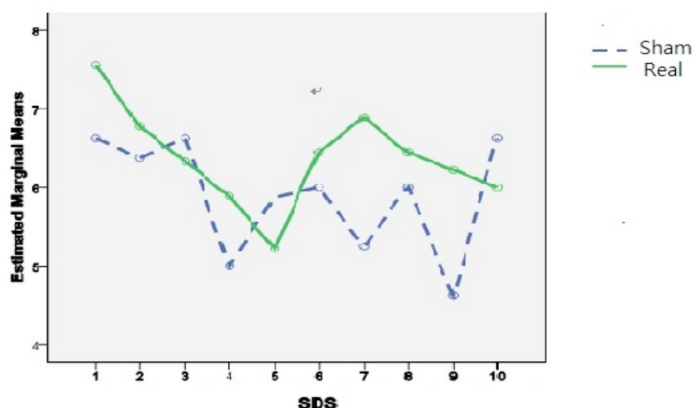
Five session of rTMS of the DLPFC may inhibit heroin cravings in heroin dependence subjects, but not decreased the urine positive rate of heroin. Due to small sample size, we need further study to confirm this result.

References

- AMIAZ, R., D. LEVY, D. VAINIGER, L. GRUNHAUS and A. ZANGEN, 2009 Repeated high-frequency transcranial magnetic stimulation over the dorsolateral prefrontal cortex reduces cigarette craving and consumption. *Addiction* 104: 653-660.
- BARR, M. S., P. B. FITZGERALD, F. FARZAN, T. P. GEORGE and Z. J. DASKALAKIS, 2008 Transcranial magnetic stimulation to understand the pathophysiology and treatment of substance use disorders. *Curr Drug Abuse Rev* 1: 328-339.



visual analog scale (VAS)
($F=2.4$; 95% CI $P=0.015$)



Severity of Dependence Scale-Chinese version (SDS)
($F=2.4$; 95% CI $P=0.015$)

心得：

經顱磁刺激(Transcranial Magnetic Stimulation)的技術，是一種非侵入性、安全性高且極少造成病人不適的神經刺激術。它藉由快速改變的磁場引發電流，進而有效的刺激大腦皮質或週邊神經。經顱磁刺激可以以單一刺激、成對刺激及重複刺激等方式進行。單一刺激及成對刺激主要是用來檢測腦部的生理現象，而連續刺激則可以改變神經迴路達到神經可塑性(plasticity)的調控。雖然詳細的系統性機轉及生理現象仍有許多值得研究的地方，但是在臨床治療應用上面已經有所發展。例如在憂鬱症的治療上面已經獲得美國藥物及食品(FDA)的適應症許可。另外在帕金森氏症、阿茲海默症、肌張力不全、偏癱、神經復健、偏頭痛、慢性疼痛及耳鳴，或者是精神疾病包含：思覺失調症和焦慮症等都已取得一些適度可信的臨床證據。此外有一些研究將rTMS的技術用於減癮的範疇，包含酒癮，菸癮，藥癮等都已有的研究發表。

Paradoxical Insomnia in Obstructive Sleep Apnea : Prevalence and Predictors

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ABSTRACT

Background:

Paradoxical insomnia (Para-I) occurs in 5% of insomnia populations but the prevalence in OSA patients remains unknown. This study identified prevalence and predictors of Para-I in OSA patients.

Methods:

We enrolled 200 patients >18 years with apnea hypopnea index (AHI) >5 who had either whole night (85/200, 42.5%) or split-night (115/200, 57.5%) polysomnography (PSG), had no sedative medication use during the study night, and who completed both pre and post PSG questionnaires. Para-I was defined by a discrepancy >50 minutes between subjective sleep onset latency (SOL) from post-PSG morning questionnaire and PSG-defined latency to persistent sleep (LPS).

Results:

Prevalence of Para-I in OSA patients was 11% (n=22). Compared to those without Para-I, they had lower sleep efficiency, longer LPS, higher arousal index (ArI) and higher periodic leg movement (PLM) arousal index both during the whole night and the first 5 minutes of consecutive sleep. Of a subsample of patients (21%, n=42) who reported SOL >30 minutes which lasted > 3 months, 19% (n=8) patients had Para-I. The same predictors of Para-I were observed in this subset of subjects as in the whole sample of subjects with Para-I.

Other demographic data and PSG parameters were not significantly different between OSA patients with or without Para-I.

Conclusions:

The prevalence of Para-I in OSA patients was 11%. OSA patients with Para-I had worse sleep over both the whole night as well as the first five minutes of sleep. Conventional PSG parameters such as arousal index might be helpful to identify people with Para-I.

心得：

來自世界各國與會的研究學者齊聚古都京都，在筆者poster present期間，多人駐足欣賞並提出討論指教，對筆者的”scientific魂”有相當助益與滋養。同時在觀摩其他學者的研究成果之後，喟嘆大家在生物精神醫學領域的研究亦是如火如荼展開，給人一日千里的感受。倘若稍有懈怠、甚或停滯不前，將嚴重落後於此間之優秀學者們，不可不慎。

Sex Differences Influence Correlates of P300 in Drug Naïve Patients with Schizophrenia

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Objectives

Many studies showed P300 variations may correlate with neuropsychological and psychopathological deficits in patients with Schizophrenia. The aims of this study was to explore how sex differences may influence the correlations between P300 and the cognitive function as well as the severities of psychopathologies in drug naïve patients with Schizophrenia.

Methods

The study included 28 drug naïve patients with Schizophrenia (female=13, male=15 mean ages: 24.03 ± 5.67). Clinical presentations and symptoms were measured by PANSS (Positive and Negative Syndrome Scale), WAIS R (The Wechsler Adult Intelligence Scale Revise) and WMS R (Wechsler Memory Scale Revise). The adjusted correlations between P300 and cognitive functions /psychopathologies were assessed using multivariate linear regression controlling for age. The statistical significance was set at $p < 0.05$, two tail.

Results

Amplitude and latency of P300 at Cz was significantly correlated with the scores in negative and supplementary scales of PANSS ($r = 0.620$, $p = 0.018$; $r = 0.612$, $p = 0.020$ respectively), but not correlated with performance in neurocognitive functions in male patients. In females, the latency of P300 at Cz was correlated with the scores in attention subscales and WAIS R in female groups

Conclusions

Our study revealed that drug naïve Schizophrenia might have different domains of impairment

by different sexuality. The possible explanation might be the brain structures¹ and connectivity variations². Hormone effects might also play another important role.

References:

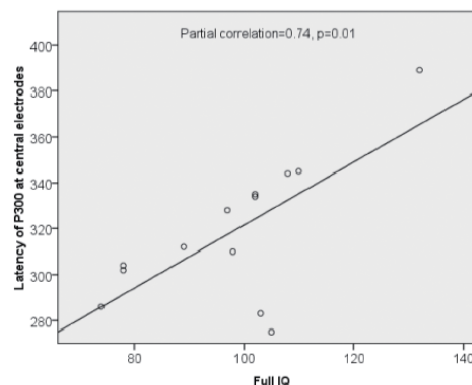
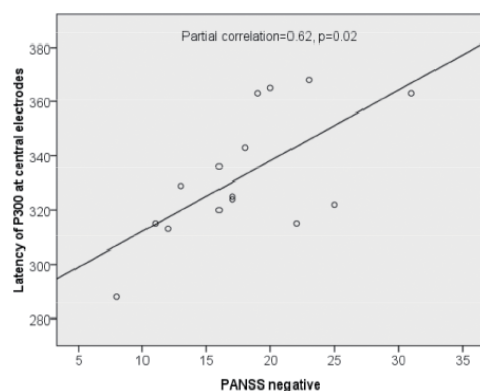
1. Hafner, H. Gender differences in schizophrenia Psychoneuroendocrinology 2003;28:17-54
2. Slewa Younan, S. Sex differences in functional connectivity in first episode and chronic schizophrenia patients. Am J Psychiatry 2004;161(9): 1595-1602

Table: correlation between P300 and psychopathologies/neuropsychological tests in different genders

	Female =13				Male=15			
	Latency Cz		Amplitude Cz		Latency Cz		Amplitude Cz	
	r	p	r	p	r	p	r	p
PANSS negative	-0.33	0.29	-0.28	0.39	0.62*	0.02	-0.23	0.42
PANSS supplementary	0.14	0.66	0.57	0.06	0.08	0.79	-0.61*	0.02
Attention/Concentration	0.61*	0.03	0.34	0.29	-0.40	0.15	0.07	0.81
Full scale intelligent quotient	0.74**	0.006	0.10	0.76	-0.21	0.47	-0.09	0.77

*: $p < 0.05$ **: $p < 0.01$

Figures: Scatter-plots for correlation between latency in Cz and PANSS/ Full IQ



心得：

日本京都，如台南古城，透露濃濃文息。在數天間，穿梭現代會場，吸收先進精神新知，轉身徜徉千年古剎，體驗金閣清水之美。

海報展場間，各國專家解說自己的研究成果，國情不同亦流露其間：日本人拘謹，穿著正式，西裝筆挺卻汗雨如下，正襟賣力解說海報內容，英語不及之處用日文補充，反覆確認你是否聽懂。韓國人打扮如型男美女，解說簡潔有力，說完彷彿你一定聽懂，萬事OK？歐美人士隨性，T shirt 牛仔褲裝扮，熱情招呼，有問必答，只怕自己英文不佳，無法窺全境。台灣鄉親，哈，你說台語也會通啦，果然是故鄉人情濃。

一趟收穫多，知識面感情面均顧，快哉！

Increased risk of morbidity among the elderly with treatment of antipsychotics: A national population-based study

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作者：陳牧宏

Objectives: Previous studies suggested that increased risks of cardiovascular and cerebrovascular diseases, seizure, fracture, and pneumonia with the use of typical and atypical antipsychotics in the elderly population, but some exhibited controversial and inconsistent results. **Methods:** Using Taiwan National Health Insurance Research Database (NHIRD), the elderly at age of ≥ 65 years ($n=5610$) who used typical (haloperidol and sulpiride) or atypical (risperidone, quetiapine, and others) antipsychotics and had no history of acute myocardial infarction (AMI), stroke, seizure, fracture, and pneumonia, respectively, were included, and compared to the age-/gender-matched (1:2) controls in investigation of the one-year risks of the above diseases with the use of antipsychotics. **Results:** Cox regression models found the increased risk of AMI with the use of haloperidol (HR: 27.96, 95%CI: 3.27~239.02) and sulpiride (HR: 3.10, 95%CI: 1.42~6.73), the increased risk of stroke with the use of haloperidol (HR: 4.41, 95%CI: 2.56~7.60), sulpiride (HR: 2.15, 95%CI: 1.72~2.68), risperidone (HR: 6.45, 95%CI: 1.96~21.20), and quetiapine (3.97, 95%CI: 1.66~9.51), the increased risk of seizure with the use of quetiapine (HR: 10.26, 95%CI: 2.05~51.35), haloperidol (HR: 27.79, 95%CI: 5.61~137.72), and sulpiride (HR: 3.46, 95%CI: 1.53~7.86), the increased risk of pneumonia with the use of risperidone (HR: 2.66, 95%CI: 1.06~6.71), quetiapine (HR: 2.25, 95%CI: 1.13~4.47), and haloperidol (HR: 3.66, 95%CI: 2.16~6.21) after adjusting demographic data, Charlson comorbidity index, and mean defined daily dose of one year. The association between fracture and antipsychotics use was not significant. **Conclusion:** Our results suggested that the elderly with treatment of antipsychotics exhibited the increased one-year risks of developing AMI, stroke, seizure, and pneumonia. The frequent risk monitor and evaluation would be required among the elderly who used both typical and atypical antipsychotics.

心得：

甫通過精神專科醫師考試，就在台灣生物精神醫學會的支持與鼓勵下，第一次參加國際會議，心情是焦慮又喜悅的。在台北榮總蘇東平副院長和白雅美教授的指導下，以「年老病患使用抗精神病藥物之共病風險：長期資料庫追蹤研究」和各國學者相聚在京都，並交換研究心得。本研究結果顯示，在使用抗精神病藥之老年個案，應特別注意其後心臟血管與腦血管疾患、癲癇、和肺炎…等風險。而會後，日本主辦單位邀請各國學者於橋本關雪紀念館晚宴，橋本是二十世紀初重要的日本畫家，能在其家中小宴小酌小聊，也是會議中意外的驚喜。



Bridging Asia to the World - A New Era for Psychiatric Treatment

TAIPEI TAIWAN
November 18-22, 2015



WPA International Congress

Date: November 18-22, 2015

Venue: Taipei International Convention Center (TICC)

in conjunction with



ACSR

4th Asian Congress of Schizophrenia Research

November 18 -20, 2015



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**4th Congress of Asian College of
Neuropsychopharmacology**

November 20 -22, 2015

"Bridging Asia to the World - A New Era for Psychiatric Treatment"

On-going preparation is processing for welcoming all the participants from the world to attend the WPAIC 2015 held from Nov. 18-22, 2015 at Taipei International Convention Center, Taiwan.

Except 8 Keynote Speakers we have invited (<http://www.wpaic2015.tw/KeynoteSpeaker.html>), the congress is honor to introduce Prof. Norman Sartorius from Switzerland to be one of our distinguished Keynote Speaker and talk about **"Strategies of Mental Health Care 2015: Challenges and Responses"** at congress.

WPAIC 2015 is going to provide a great opportunity for psychiatric physicians to stimulate and exchange the most up-to-date medical knowledge. And also to carry on the goal of WPA to keep making great contribution and development to the field of psychiatric treatment, discover and bring the better life to our world.

TAIPEI, a global city with a wealth of historical sites and plenty of leisure, shopping and nightlife offerings. Especially, you must visit our popular landmarks like the National Palace Museum, National Chiang Kai-shek Memorial Hall, Taipei 101 Mall, Shilin and Raohe Street Tourist Night Market. On behalf of the WPAIC 2015 Organizing Committee, we truly welcome you to come to Taipei and wish you have a wonderful memory during your stay in Taipei.

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台灣生物精神醫學暨神經精神藥理學學會通訊 第二十一期

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