中區失智症季會

時間：104年09月19日PM14:00-17:00

地點：永豐棧酒店 本館3F交誼廳

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Moderator</th>
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<tbody>
<tr>
<td>14:10-14:30</td>
<td>Reception</td>
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<td>14:30-14:40</td>
<td>Opening</td>
<td></td>
<td>孫明輝醫師 光田神經科</td>
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<tr>
<td>14:50-15:20</td>
<td>Is poor dental health linked with Dementia?</td>
<td>柯麗櫻醫師 光田神經科</td>
<td>孫明輝醫師 光田神經科</td>
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<td>15:20-15:50</td>
<td>A neuropsychological approach on differential diagnosis of the varied Dementia</td>
<td>陳威嘉心理師 光田神經科</td>
<td>孫明輝醫師 光田神經科</td>
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Break

| 16:00-16:40 | The impact of FDG-PET in degenerative Dementia diagnosis             | 徐榮隆醫師 林口長庚神經科 | 孫明輝醫師 光田神經科 |
| 16:40-17:00 | Closing remark                                                        |                       | 孫明輝醫師 光田神經科 |

主辦單位: 光田綜合醫院神經科

協辦單位: 台灣神經學學會, 台灣諾華股份有限公司

教育學分: 台灣神經學學會, 台灣臨床失智症學會, 老人精神醫學會, 台灣精神醫學會、台灣心理學會
Introduction

The Impact of FDG-PET in Degenerative Dementia Diagnosis
Jung-Lung, Hsu MD, Ph.D
Section of dementia and cognitive impairment, Department of Neurology
Chang Gung Memorial Hospital, Linkou, Taiwan

The introduction of positron emission tomography (PET) and magnetic resonance imaging (MRI) in diagnostic clinical imaging is a major step in the evolution of evermore sophisticated imaging systems combining two state-of-art imaging technique in a dementia diagnosis. PET and MRI opened up many new avenues in clinical and research environments, mainly by providing multi-modality images obtained during the examination. In primary neurodegenerative dementia, both PET and MRI provides detail anatomical and molecular images which help clinician to disclose the spatial correlated, time-dependent pathological process in the brain. Recently, several tracers have been developed to explore the maps of neuronal metabolism, neurotransmitter activity and pathological protein deposition in the brain. The most common molecular image used in neurodegenerative disease is the fluorodeoxyglucose PET (FDG-PET), which assess the resting state cerebral metabolism. This signal intensity is a proxy for neuronal activity and a direct index of synaptic function and density. Various events can contribute to synaptic dysfunction and consequent neurodegeneration, such as altered intracellular signalling cascades and mitochondria bioenergetics, impaired neurotransmitter release, and long-distance disconnection effects that are captured by FDG-PET. Currently, decreased uptake in temporo-parietal region is a neuronal injury biomarker for diagnosis of Alzheimer’s disease dementia (AD). In dementia with lewy body (DLB), both the cingulate island sign (CIS) and decreased uptake in occipital region are typical presentation. The frontal-temporal lobar degeneration (FTLD) which contains both behavior variant of fronto-temporal dementia (bv-FTD) and primary progressive aphasia (PPA). Decrease frontal and anterior temporal metabolism is characteristic for bv-FTD and the left lateral temporal hypometabolism is typical for semantic dementia. Finally, various new PET tracers had been developed to explore the different pathological biomarker in neurodegenerative disease such as amyloid marker (e.g Pittsburgh compound-B (PiB), florbetapir(AV-45) and florbetaben), tau marker (e.g FDDNP, THKS23, THKS105 and THKS117) and monoamine marker (AV-133). These agents, combine with high resolution anatomical image could improve our knowledge related to the pathophysiological process of the different degenerative dementia.
CV: 柯麗櫻

現職：台中沙鹿光田醫院神經科主治醫師

學歷：清華大學化學工程系畢

長庚大學學士後醫學系畢

弘光科技大學營養醫學研究所碩士畢

經歷：新光吳火獅紀念醫院神經科住院醫師 總醫師

台灣神經學會會員

台灣失智學會會員

Topic: Is poor dental health linked with dementia?

Abstract:

The animal model has shown that the dental health is associated with the cognitive functions. Two relationships between poor dental health and dementia were reported: the chemical domain and the physical domain which focus on the mastication and the inflammation respectively.

According to fMRI, the chewing movement results in bilateral enhancements of the BOLD signals in the sensorimotor cortex, cerebellum, thalamus, supplementary motor area, and insula, and a
unilateral enhancement of signals in the right prefrontal area, some of which are age-dependent. Does the results of animal and human experimental studies suggest a causal relationship between the mastication and cognitive functions?

Gum disease bacteria (Porphyromonas gingivalis) was found in the brain which is another issue of this linkage: inflammation.

The sequelae or complication of poor dental health - nutritional problem - also has impacts on the mentality.

Discuss about the dental health is very practical for the prevention and care of dementia population.
CURRICULUM VITAE

1. Personal information

<table>
<thead>
<tr>
<th>Name in Chinese</th>
<th>Name in English</th>
<th>Hsu, Jung-Lung</th>
</tr>
</thead>
<tbody>
<tr>
<td>徐榮隆</td>
<td>(Last Name)(First Name)(Middle Name)</td>
<td></td>
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<thead>
<tr>
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<tr>
<td>Taiwan</td>
<td>☑</td>
<td>12/13/1967</td>
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<td></td>
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<tr>
<th>Address</th>
<th>Section of Dementia and Cognitive Impairment, Department of Neurology, Chang Gung Dementia Center, Chang Gung Memorial Hospital, Linkou, Taipei, Taiwan. 199, TUNG-HWA NORTH ROAD, TAIPEI 10591, TAIWAN</th>
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<tr>
<th>Telephone</th>
<th>886-3-3281200 ext.8950</th>
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<tbody>
<tr>
<td>Fax</td>
<td>886-3-3287226</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:tulu@ms36.hinet.net">tulu@ms36.hinet.net</a></td>
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2. Education

<table>
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<tr>
<th>School</th>
<th>Country</th>
<th>Department/Major</th>
<th>Degree</th>
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<tbody>
<tr>
<td>Taipei Medical University</td>
<td>Taiwan</td>
<td>Department of Medicine</td>
<td>M.D.</td>
<td>1987/July-1994/June</td>
</tr>
<tr>
<td>Taipei Medical University</td>
<td>Taiwan</td>
<td>Graduate Institute of Medical Informatics</td>
<td>M.S.</td>
<td>2003/July-2006/June</td>
</tr>
<tr>
<td>National Taiwan University</td>
<td>Taiwan</td>
<td>Institute of BioMedical Engineering</td>
<td>Ph.D.</td>
<td>2007/July-2014/Jan</td>
</tr>
<tr>
<td>Utrecht University</td>
<td>Netherlands</td>
<td>Image science institute</td>
<td>Ph.D.</td>
<td>2008-2013/Nov</td>
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<tr>
<td>Chang Gung Memorial Hospital</td>
<td>Department of Neurology</td>
<td>Attending</td>
<td>2014/March</td>
</tr>
<tr>
<td>Shin Kong WHS Memorial Hospital</td>
<td>Department of Neurology</td>
<td>Attending</td>
<td>1996/July-2014/Feb</td>
</tr>
<tr>
<td>University of California San Diego</td>
<td>Swartz Center of Computational Neuroscience</td>
<td>Clinical research fellow</td>
<td>2004/July-2005/June</td>
</tr>
<tr>
<td>Taipei Medical University</td>
<td>Institute of Medical Informatics</td>
<td>Assistant Professor</td>
<td>2009/July-now</td>
</tr>
</tbody>
</table>

4. Fields of specialty (limit to fields related to research).

Clinical Neurology, Neuroimage, Dementia

5. Membership

台灣神經學會會員
台灣失智症學會理事兼教育學組召集人
台灣失智症協會會員
台灣動作障礙學會會員
台灣腦中風學會會員
6. Journal paper


B Conference paper


Topic

A neuropsychological approach on differential diagnosis of the varied dementias

失智症是一種神經心理症候群(syndrome)，可將其簡單視為人類心智能力與生活功能的崩解，而心智功能的崩壞更精確的定義為：兩個以上認知功能領域(domain)在神經心理測驗中表現出缺損的狀況。根據認知心理學，人類有著許多不同的認知功能領域，包括：記憶力、注意力、執行功能、語言功能、視空間能力及抽象思考能力等，因此這意味著失智症在認知功能領域的缺損上會有不同樣式的呈現，而這在不同神經疾病類型所產生的失智症也提供了鑑別診斷的特徵，也就是說，不同的失智症將有不同的神經心理功能的缺損特徵，而這將協助提供神經科醫師去鑑別診斷不同的失智症類型。

CV

光田綜合醫院神經內科 陳威嘉臨床心理師

學歷

台灣大學心理系

台灣大學心理研究所臨床心理組

經歷

光田綜合醫院神經內科 臨床心理師

臺大醫院神經部 實習臨床心理師

台北市立聯合醫院松德院區精神科實習臨床心理師