

出國報告（出國類別：會議）

台灣新興濫用藥物問題：臨床毒物學  
之觀點 (Emerging Drugs of Abuse in  
Taiwan: Viewpoints from a Clinical  
Toxicologist)

服務機關：台北榮民總醫院

報告人：蔡維禎 醫師

其他團員：中研院 李德章教授（團隊召集人）、成功大學醫學院工業衛生學科暨環境醫學研究所 王應然教授、國衛院環境衛生與職業醫學研究組 林嬪嬪教授、陽明大學 陳美蓮教授、楊振昌教授、台北榮民總醫院 劉宗榮教授等，共八位

派赴國家：日本仙台市（第六屆亞洲毒物學會國際研討會）

出國期間：2012 年 7 月 17 至 19 日

報告日期：2012 年 7 月 29 日

## 摘要（含關鍵字）

第六屆亞洲毒理學會國際學術研討會於2012年7月17日至20日於日本仙台市召開。職應邀於會議中提出的口頭報告，題目為「台灣新興濫用藥物問題：臨床毒物學之觀點」。本報告介紹台灣藥物濫用相關問題，著重在近年來全球共通的新興濫用藥物問題在台灣之影響，以及各項新興濫用藥物之毒性在臨床病患之觀察所見、治療經驗與臨床困難待解決等問題。除職之報告外，中國北大劉志明醫師報告「中國藥物濫用問題之現況與特性」，最後由日本吉田武美博士介紹「日本藥物濫用現況」。本次大會主要來自亞洲各國毒藥物學學者，台灣由中研院、台大毒理所、國衛院、陽明大學、台北榮民總醫院等多位教授、醫師組團參加。個人從事的藥物濫用相關防治工作，對於能與來自鄰國的專家學者一起討論共通之新興藥物濫用問題，對國內該問題之防治，尤其在毒物學領域之毒理研究、臨床醫療、檢驗分析等的新進展，有了進一步的發展方向。

關鍵字： 藥物濫用、亞洲毒理學會。

## 目次

### 一、 目的

第六屆亞洲毒理學會國際學術研討會於 2012 年 7 月 17 日至 20 日於日本仙台市聯合召開。 職應邀在大會擔任講員前往出席學術討論會議。

### 二、 過程：

第六屆亞洲毒物學會國際研討會於 2012 年 7 月 17 至 20 日，在日本仙台市國際會議中心舉行，本屆主辦單位也和第 39 屆日本毒理學會之學術研討會合併舉行。 本次由中研院李德章教授擔任我國之團隊召集人，團員包括：成功大學醫學院工業衛生學科暨環境醫學研究所王應然教授、國衛院環境衛生與職業醫學研究組林嬪嬪教授、陽明大學陳美蓮教授、楊振昌教授、台北榮民總醫院劉宗榮教授、蔡維禎醫師等八位由國科會出國開會計畫補助經費，其他成員尚有台北榮民總醫院毒物科鄧昭芳主任及國科會、台大毒理所多位教授參加。

職應邀於會議中提出的口頭報告，題目為「台灣新興濫用藥物問題：臨床毒物學之觀點」。本報告目的在於介紹台灣藥物濫用相關問題，尤其著重在近年來全球共通的新興濫用藥物問題在台灣之影響、以及此問題在東亞國家間之影響，最後簡介各項新興濫用藥物之毒性在臨床病患之觀察所見、治療經驗與臨床困難待解決的問題。本題被安排在 7 月 18 日上午之「藥物濫用」只提內，本節目由日本九州大學藥學研究所山田英之博士與中國北京大學藥物依賴研究所所長陸林醫師主持。除了職之報告外，中國北京大學藥物依賴研究所劉志明醫師也報告了「中國藥物濫用問題之現況與特性」，大致上跟台灣的問題極為類似，尤其在各都會區，這也印證了近年來，兩岸關係熱絡後，台灣司法單位所破獲此方面之毒品中有一大部分是來自對岸。當然地，香港、日本等國之資料也蠻接近的。這也顯示隨著交通互動頻繁、網路、媒體等因素影響，這方面的問題已經是一個全球村共同的問題，無一能倖免。最後一題，由日本藥劑師認定制度認證機構之吉田武美博士介紹「日本藥物濫用現況」，其主要以法醫藥物分析觀點介紹毒品危害案件，並介紹該機構發展之新興藥物濫用物質分析方法。

### 三、 心得

本次會議在日本乾淨、美麗的仙台市舉行，雖屬去年三月海嘯襲擊之宮城縣災區，就連到受災之松島海岸海邊也見不到傷害痕跡，一切乾淨、整潔如故；倒是店家、飯店保留災害發生後之照片，隨時提醒大家災害意識。這次與會人士主要來自亞洲各國毒藥物學學者，台灣則由中研院、台大毒理所、國衛院、陽明大學、台北榮民總醫院等多位教授、醫師組團參加。會場場內外佈置精美、

安靜，無論場內外聆聽、討論或沉思都是非常好的地方。會議期間除了聆聽演講及發表論文，也結識多位各國之同好專家、學者。個人從事的藥物濫用相關防治工作，對於能與來自鄰國的一些專家學者一起討論共通之新興藥物濫用問題，對國內該問題之防治，尤其在毒物學領域之毒理研究、臨床醫療、檢驗分析等的新進展，經互相切磋、討論而有了進一步的發展方向。就如，從日本藥劑師認定制度認證機構之吉田武美博士於「日本藥物濫用現況」之介紹中，了解他們已經發展出能同時且快速篩驗一百多種新興藥物濫用物質的方法。這在新興濫用藥物種類快速演變的時代，甚為重要；也是目前台灣此方面檢驗能力面臨挑戰的窘境，真值得我們學習、借鏡。

#### 四、 建議事項

很幸運能有這次機會參加本屆會議，會中大家在一樣之領域範疇內，提出不同方向之介紹、論述，加上熱烈之討論，確實補足不少心中的疑惑。可能是同時日本毒理學會之學術研討會合併舉行的關係，整個大會會場一大部分都是年輕人，能讓這麼多年輕研究人員，有機會在會議中與多位國際專家學者一起聆聽、討論、互動，確能推波大家進一步研究的方向及動機，真是不錯及值得仿效的方式，尤其在國內多鼓勵年輕研究人員參予此些國際學術活動。

#### 附錄

攜回的大會手冊部份影本。

## Symposium

Symposium 1

July 18 (Wed.) 9:00 - 12:00

Room 4

### Advances in clinical toxicology

Chairpersons : Winai WANANUKUL (*Ramathibodi Poison Center, Division of Clinical Pharmacology and Toxicology, Department of Internal Medicine, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand*)

Jou-Fang DENG (*Division of Clinical Toxicology, Department of Medicine, Taipei Veterans General Hospital, Taiwan*)

**AS1-1 Advance in the management of acute human poisonings: new treatment modalities**

9:00 - 9:30

**Chen-Chang YANG<sup>1,2</sup>**

<sup>1</sup>*Department of Environmental & Occupational Medicine, Faculty of Medicine, School of Medicine, National Yang-Ming University, Taiwan,*

<sup>2</sup>*Division of Clinical Toxicology, Department of Medicine, Taipei Veterans General Hospital, Taiwan*

**AS1-2 Complement inhibition alleviates paraquat-induced acute lung injury**

9:30 - 10:00

**Han Bin WANG**

*Affiliated Hospital of Academy of Military Medical Sciences, China*

**AS1-3 Management of insecticide poisoning**

10:00 - 10:30

**Hyung-Keun ROH**

*Division of Clinical Pharmacology, Department of Internal Medicine, Gachon University Hospital, Korea*

**AS1-4 How should we evaluate causality for adverse reactions during clinical trials?**

10:30 - 11:00

**Stewart GEARY**

*Eisai Co., Ltd., Japan*

**AS1-5 Advance in antidotes management**

11:00 - 11:30

**Winai WANANUKUL**

*Committee on Policy in Development to Gain Access to Orphan Drugs, and Ramathibodi Poison Center, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand*

**AS1-6 How should we make the most of the toxicological data in the clinical fields?**

11:30 - 12:00

**Tomoko HASUNUMA**

*Division of Collagen Diseases, Department of Internal Medicine, Toho University, Japan*

Symposium 2

July 18 (Wed.) 9:00 - 11:15

Room 5

### Drug abuse

Chairpersons : Lin LU (*National Institute on Drug Dependence, Peking University, China*)

Hideyuki YAMADA (*Graduate School of Pharmaceutical Sciences, Kyushu University, Japan*)

**AS2-1 Emerging drugs of abuse in Taiwan, viewpoints from a clinical toxicologist**

9:00 - 9:45

**Wei-Jen TSAI, Jou-Fang DENG**

*Division of Clinical Toxicology, Taipei Veterans General Hospital, Taiwan*

**AS2-2 Current situation and characteristics on drug abuse in China**

9:45 - 10:30

**Zhimin LIU**

*National Institute on Drug Dependence, Peking University, China*

# Symposium 2

## Drug abuse

Chairpersons : Lin LU (National Institute on Drug Dependence, Peking University, China)  
Hideyuki YAMADA (Graduate School of Pharmaceutical Sciences, Kyushu University,  
Japan)

**AS2-1 Emerging drugs of abuse in Taiwan, viewpoints from a clinical toxicologist**

Wei-Jen TSAI, Jou-Fang DENG

*Division of Clinical Toxicology, Taipei Veterans General Hospital, Taiwan*

**AS2-2 Current situation and characteristics on drug abuse in China**

Zhimin LIU

*National Institute on Drug Dependence, Peking University, China*

**AS2-3 Drug abuse - current status in Japan -**

Takemi YOSHIDA

*Council on Pharmacists Credentials, Japan*

**AS2-1****Emerging drugs of abuse in Taiwan, viewpoints from a clinical toxicologist**

Wei-Jen TSAI, Jou-Fang DENG

*Division of Clinical Toxicology, Taipei Veterans General Hospital, Taiwan*

Currently in Taiwan, the illicit substances used include sedatives, hypnotics, solvents, heroin, amphetamines, and hallucinogens (MDMA, ketamine, marijuana, and LSD). The so-called club or pub drugs include sedatives, hypnotics, solvents, cocaine, amphetamines, and hallucinogens. All these drugs are popular in the adolescents, especially hallucinogens, sedatives and their mixtures. Since late 1990s, their epidemics in many countries/regions, Taiwan as well, are related to problems of globalization, and further wide-spread by media, websites, pubs/parties.

The acute effects of hallucinogens or sedatives are less toxic than narcotics or stimulants. Therefore, cases of hallucinogen or sedatives seemed seldom found clinically. However, cases of acute phenyl alkylamines (MDMA, PMMA, mephedrone, etc) and gamma-hydroxybutyric acid poisoning were sometimes encountered. Nevertheless, cases of ketamine induced uropathy and nitrous oxide induced neuropathy among the young users were increasingly found in these couple years. Besides, these drugs provide as "gate drugs" due to their variability and changeable ingredients and forms of pills, and more choice for the youth. All these raised important public health issues.

Primary care clinicians may encounter substance abusers often but may not always recognize the direct drug effects, their complications, withdrawals, and even its social consequences, including accidents, suicide, homicide, drug facilitated sexual assaults, etc. Moreover, psychological consequences of drug abuse, such as aggressive behavior, suicidal ideation, or hallucinosis, or psychiatric co-morbidities often found in drug users. Patients with these presentations should be carefully related to drug use. Frequently, it is urgent and difficult to tell what conditions indicate the evidence of drug use, and which complications need to be suspected in known drug users. Moreover, it's hard to deal with adolescents with substance abuse, due to less frequent use, less toxic substance. However, it's important to detect, educate and treat adolescents with substance abuse problems as earlier as possible.

**AS2-2****Current situation and characteristics on drug abuse in China**

Zhimin LIU

*National Institute on Drug Dependence, Peking University, China*

According to the statistics from the office of Chinese National Narcotic Control Commission (NNCC), the cumulative number of registered drug abusers in mainland China increased from 70 000 in 1990 to 1.55 million by the end of 2010. Heroin continues to be the most commonly abused drug. According to the data from NNCC, heroin abusers made up 69.0% of the total drug abusers in 2010. Recent epidemiologic survey shows that the heroin abuse has leveled off and may actually be declining in most provinces, autonomous regions and metropolis. However, the "synthetic drugs" or new emerging drugs which majority of that are the psychotropic substances such as "ice" (methamphetamine, MA), "shake-head pill" (MDMA or ecstasy), "K powder" (Ketamine) and "shake-head water" have penetrated into China through various channels since 2000. The first reported case of MDMA abuse we surveyed appeared in China in 1999. Since then, methamphetamine and MDMA and ketamine abuse have spread to disco clubs and public entertainment within the urban areas of major cities, and are rapidly epidemic in many areas. Our epidemiologic survey shows that ATS or new emerging drugs abuse produced multiple social, public health and individual consequences.