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35
35th Anniversary
三十五週年

中大進行全球首項大型青少年流行病學統計 濫用冰毒會引致下尿路症狀

CUHK World's First Large-scale Epidemiological Survey on Adolescents
Reveals Abuse of Methamphetamine Associated with Increased Risk of Developing
Lower Urinary Tract Symptoms



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35
1980-2015

中大青少年泌尿治療中心 Youth Urological Treatment Centre (YUTC)

背景 Background of YUTC



中大醫學院外科學系於2011年12月在香港特別行政區政府轄下禁毒基金贊助下在威爾斯醫院成立了**青少年泌尿治療中心 (YUTC)**

Department of Surgery at CUHK established **Youth Urological Treatment Centre (YUTC)** at Prince of Wales Hospital in Dec 2011 after receiving the funding support of Beat Drugs Fund of HKSAR government

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1980-2015

背景 Background of YUTC



- 醫院管理局與中大聯手合作營運

Out-patient specialist clinic operated by the Hospital Authority

- 致力為患有與濫用精神藥物，主要是氯胺酮，有關的泌尿問題的年青病人提供泌尿治療

Provide urological care to young patients who suffer from urinary tract problems associated with psychotropic substance abuse, predominantly ketamine

- 設有預約熱線電話：26323773

Telephone hotline for appointment booking: 26323773

- 與其他禁毒社福機構合作

Strong collaboration with other anti-drug social work services

- 大部份病人由社工轉介並陪同覆診

Majority of patients referred by and accompanied by social workers during the consultations



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背景 Background of YUTC



至今YUTC已治療超過**600名**患有與氯胺酮或甲基安非他明有關的排尿功能障礙的病人，與氯胺酮有關的排尿功能障礙於2007年才首次刊於醫學文獻。

To date, YUTC has treated > **600** young patients suffering from ketamine- or methamphetamine-associated urinary tract dysfunction. Ketamine-associated urinary tract dysfunction was first known in medical literature in 2007.



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背景 Background of YUTC

在2014年，YUTC發表了全球首份大型研究關於患有與氯胺酮有關的排尿功能障礙的論文，並於權威性泌尿科期刊 BJU International 發表

In 2014, YUTC published the world's largest series of patients suffering from ketamine-associated urinary tract dysfunction in the authoritative urology journal : The BJU International

Functional Urology

BJU
BJU International

One-stop clinic for ketamine-associated uropathy: report on service delivery model, patients' characteristics and non-invasive investigations at baseline by a cross-sectional study in a prospective cohort of 318 teenagers and young adults

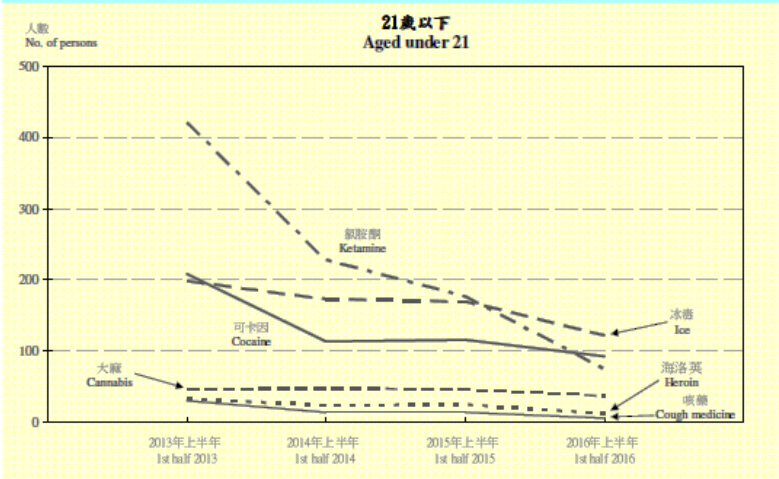
Tam *et al.* 2014 BJU Int



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按年齡組別及常被吸食的毒品種類劃分的被呈報吸食毒品人士 (2013年上半年至2016年上半年) Reported drug abusers by age group by common type of drugs abused (1st half 2013 to 1st half 2016)



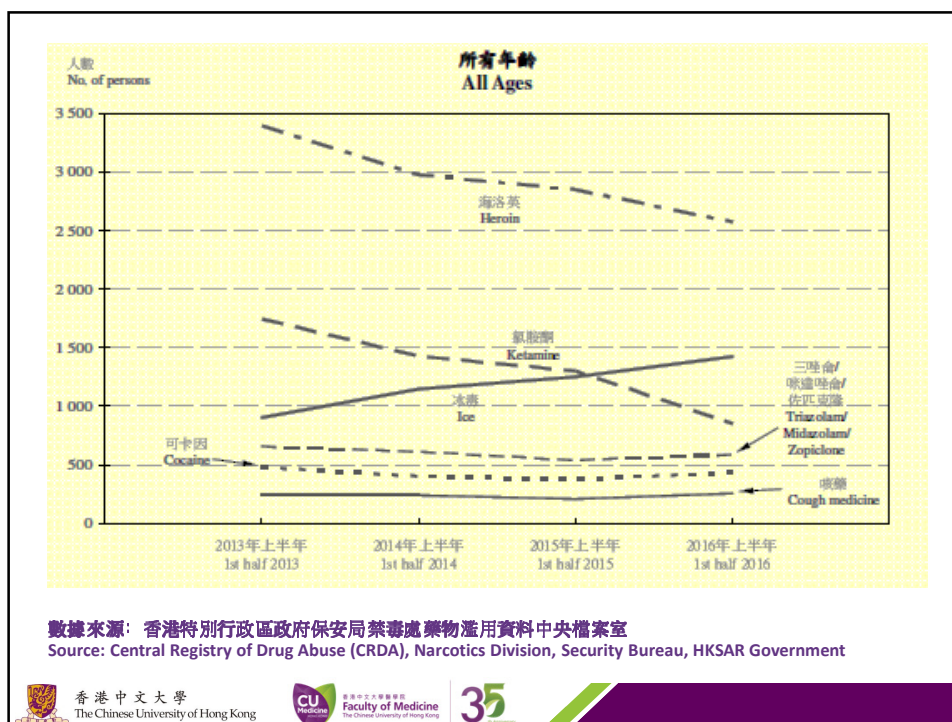
數據來源：香港特別行政區政府保安局禁毒處藥物濫用資料中央檔案室

Source: Central Registry of Drug Abuse (CRDA), Narcotics Division, Security Bureau, HKSAR Government



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最新政府數字 Latest government figures

Age group / common type of drugs abused	2013		2014		2015		2015 first half		2016 first half	
	No.	% *	No.	% *	No.	% *	No.	% *	No.	% *
Newly reported persons										
Aged under 21										
Heroin	24	3.3	25	5.2	18	4.5	9	3.9	@	@
Psychotropic substances	700	97.0	459	96.2	386	96.3	226	97.0	176	97.8
Methylamphetamine(Ice)	244	33.8	191	40.0	164	40.9	91	39.1	76	42.2
Ketamine	338	46.8	192	40.3	147	36.7	84	36.1	47	26.1
Aged 21 & over										
Heroin	322	17.3	280	18.0	275	16.5	144	16.4	125	15.5
Psychotropic substances	1 557	83.5	1 300	83.6	1 431	85.7	759	86.3	695	86.3
Methylamphetamine(Ice)	409	21.9	416	26.8	552	33.1	265	30.1	312	38.8
Ketamine	890	47.7	638	41.0	597	35.8	340	38.6	194	24.1

數據來源：香港特別行政區政府保安局禁毒處藥物濫用資料中央檔案室
Source: Central Registry of Drug Abuse(CRDA), Narcotics Division, Security Bureau, HKSAR Government

全球首項大型青少年流行病學統計 檢視青少年LUTS 發病率及濫用精神藥物的影響

The world's first large-scale epidemiological survey to investigate prevalence of lower urinary tract symptoms in adolescents and the effects of psychotropic substance abuse

由中大醫學院外科學系進行

Conducted by the Department of Surgery, Faculty of Medicine, CUHK

中大流行病學統計調查 CUHK Epidemiological Survey

研究期：2012-2014年

由禁毒基金贊助

中學生不記名自願性問卷調查

- 下尿路症狀（共8項）：尿頻、尿急、小便失禁、夜尿、排尿費力、排尿斷續、小便疼痛及排尿不清
- 濫用精神藥物

Study period: 2012- 2014

Funded by the Beat Drugs Fund

Anonymous questionnaire survey on voluntary basis in secondary students

- Lower urinary tract symptoms (8 in total): urinary frequency, urgency, urinary incontinence, nocturia, straining at urination, intermittent urinary stream, painful urination, incomplete bladder emptying
- Psychotropic substance abuse

中大流行病學統計調查 CUHK Epidemiological Survey

隨機抽選香港45間中學，11,938名中學生完成及交回有效問卷作分析用途。

Successfully recruited 11,938 participants from 45 secondary schools randomly selected and with returned questionnaires eligible for analysis

❖ 香港島=7；九龍=13；新界=25
HKI=7; KIn=13; NT=25

❖ 抽選大概2.5%的全港中學生及9%的中學
Sample from approximately 2.5% of total no. of secondary students and 9% of total no. of secondary schools

❖ 男性=51%；女性=49%
Male=51%; Female=49%

❖ 13-17歲=82%；<13歲=13%；≥18歲=5%
Aged 13-17 years=82%; aged <13 years=13%; aged ≥ 18 years=5%



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中大流行病學統計調查 CUHK Epidemiological Survey

321人（2.7%）中學生曾濫用精神藥物

321(2.7%) secondary students ever abused psychotropic substances

– 氯胺酮 (45.6%)，咳藥水 (31.5%)、搖頭丸 (25.5%)、甲基安非他明（俗稱“冰”）(25%)、大麻 (23%)

Ketamine (45.6%), cough mixture (31.5%), ecstasy (25.5%), methamphetamine (commonly known as “Ice”) (25%), cannabis (23%)

– 與香港特別行政區政府保安局禁毒處2011/12及2014/15年度學生服用藥物情況調查結果顯示的2.2%相約

Comparable to 2.2% in the 2011/12 and 2014/15 Survey of Drug Use Among Students conducted by Narcotics Division, Security Bureau, HKSAR Government



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中大流行病學統計調查 CUHK Epidemiological Survey

18.5%未曾濫用精神藥物的受訪者曾出現LUTS，而曾濫用精神藥物的受訪者中出現LUTS的比例則為47.8%

($p < 0.001$; 統計學上有明顯差異)

18.5% non-psychotropic substance abusers (non-PSA) experienced LUTS compared with 47.8% among psychotropic substance abusers (PSA)

($p < 0.001$; statistically significant)

中大流行病學統計調查 CUHK Epidemiological Survey

將曾濫用精神藥物的受訪者細分後再分析LUTS發病率

Breaking down PSA for subgroup analysis in prevalence rates of LUTS

- 濫用氯胺酮及甲基安非他明
Abusing Ketamine plus Methamphetamine

- 風險最高，70%曾出現LUTS
Highest risk, 70% experienced LUTS

- 出現LUTS的風險是未曾濫用精神藥物的受訪者的9倍
9-times the risk of non-PSA in developing LUTS



氯胺酮 Ketamine



甲基安非他明
Methamphetamine

圖片來源：禁毒處網頁
Source: Narcotics Division website

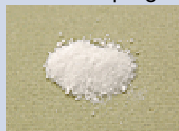
中大流行病學統計調查 CUHK Epidemiological Survey

濫用**氯胺酮**但沒有**甲基安非他明**
Abusing **Ketamine** without additional
Methamphetamine

47%出現LUTS

出現LUTS的風險是未曾濫用精神藥物的受訪者的5倍

47% experienced LUTS
5-times the risk of non-PSA in
developing LUTS



氯胺酮 Ketamine



甲基安非他明
Methamphetamine

濫用**甲基安非他明**但沒有**氯胺酮**
Abusing **Methamphetamine**
without additional Ketamine

45%出現LUTS

出現LUTS的風險是未曾濫用精神藥物的受訪者的4倍

45% experienced LUTS
4-times the risk of non-PSA in
developing LUTS



甲基安非他明
Methamphetamine



氯胺酮 Ketamine

調查結論 Study Conclusions

- 除了已知濫用氯胺酮與LUTS的關係外，研究清晰表示**濫用甲基安非他明與增加出現LUTS的風險有關**，研究中**45%**甲基安非他明濫用者曾出現LUTS。

In addition to the known association between Ketamine abuse and LUTS, **this study demonstrates clearly that abuse of Methamphetamine can also increase the risk of developing LUTS** and **45%** of Methamphetamine abusers experienced LUTS in this study.

調查結論 Study Conclusions

- 同時濫用氯胺酮及甲基安非他明出現LUTS風險最高
Abusing the combination of Ketamine + Methamphetamine associated with the highest risk of developing LUTS
- 需要徹底打破甲基安非他明比氯胺酮對泌尿系統而言「相對安全」的荒誕說法
Should completely dispel the myth that Methamphetamine is a 'safer' drug than Ketamine for the urinary tract



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探訪住院戒毒康復中心內的康復者 Visits to Residential Treatment & Rehabilitation Centres for Drug Abusers



晨曦會姊妹之家
Operation Dawn Limited Girl Centre



榮頌團契
Glorious Praise Fellowship (Hong Kong) Limited



新生協會及方舟行動元朗中心
Christian New Life Association Limited and Mission Ark



晨曦會黃大仙中途宿舍
Operation Dawn Limited
Wong Tai Sin Centre



晨曦島戒毒治療中心
Dawn Island



基督教互愛中心大美篤女性訓練中心
Wu Oi Christian Centre Tai Mei Tuk
Female Training Centre



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探訪住院戒毒康復中心內的康復者

Visits to Residential Treatment & Rehabilitation Centres for Drug Abusers



基督教巴拿巴愛心服務團南丫島訓練中心
Barnabas Charitable Service
Lamma Training Centre



基督教巴拿巴愛心服務團馬鞍山中途宿舍
Barnabas Charitable Service
Ma On Shan Half-way House



香港基督教服務處賽馬會日出山莊
Hong Kong Christian Service
Jockey Club Lodge of Rising Sun



香港戒毒會區莫雅修女紀念婦女康復中心
SARDA Sister Aquinas Memorial Women's
Treatment Centre



基督教互愛中心浪茄男性訓練中心
Wu Oi Christian Centre
Long Ke Training Centre



香港戒毒會石鼓洲康復院
SARDA Shek Kwu Chau Treatment and
Rehabilitation Centre



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吸食多於一種精神藥物 Polysubstance abuse

- 至今YUTC已治療超過600名發現患有與氯胺酮有關的排尿功能障礙的病人

To date, YUTC has treated > 600 young patients suffering from ketamine-associated urinary tract dysfunction

- 47%病人有吸食其他精神藥物
47% polysubstance abusers

- 過去一年11個患有與甲基安非他明有關的排尿功能障礙的案例

Over the past one year, 11 patients suffering from Methamphetamine-associated urinary tract dysfunction



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甲基安非他明與泌尿問題 Methamphetamine and Urological problems

Prevalence and Management of Lower Urinary Tract Symptoms in Methamphetamine Abusers: An Under-Recognized Clinical Identity

Kyo Chul Koo, Dong Hoon Lee, Jang Hwan Kim, Koon Ho Rha, Byung Ha Chung, Sung Joon Hong* and Sang Yol Maht

From the Department of Urology and Urological Science Institute, Yonsei University College of Medicine, Seoul (KCK, DHL, JHK, KHR, BHC, SJH, SYM), and Drug and Substance Abuse Treatment and Rehabilitation Center, National Forensic Hospital, Banpo-meun, Gyeongju (KCK), Republic of Korea

- 2011年5月-2013年3月
May 2011 to March 2013
- 78名男病人(與71名年齡匹配的對照組相比)
78 male patients (compared to 71 age matched control)
- 濫用甲基安非他明時間中位數: 18.1年
Median Methamphetamine usage 18.1 years
- LUTS發病率 - 甲基安非他明: 77%; 對照組: 15%
Prevalence of LUTS - 77% in MA cases vs 15% in control
- 排尿症狀(由IPSS問卷測量) - 甲基安非他明: 13.3; 對照組: 5.6
Voiding symptom (measured by IPSS) - 13.3 in MA cases vs 5.6 in control
- 88%對藥物治療有反應 · 12%沒有
88% responded to drug treatment but still 12% had no response

Koo KC et al J Urol 2014; 191: 722-726



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The Impact of Illicit Use of Amphetamine on Male Sexual Functions

Nan-Hua Chou, MD,* Yung-Jui Huang, MS,† and Bang-Ping Jiann, MD‡

- 2006年7月-2011年8月
July 2006 to August 2011
- 1159名男性安非他明使用者(與211名年齡匹配的對照組相比)
1159 male amphetamine users (vs 211 age matched control)
- 年齡: 31.9歲 (18-57歲)
Age 31.9 (18-57 years old)
- 勃起功能障礙發病率 - 安非他明使用者: 29.3%; 對照組: 11.9%
Prevalence of erectile dysfunction 29.3% in Amp cases vs 11.9% in control
- 安非他明使用者勃起功能障礙比值比: 2.1
Odd ratio of ED for Amp user = 2.1

Chou NH et al J Sex Med 2015;12:1694-1702



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青少年泌尿治療中心的經驗 Experience from YUTC

2015年9月- 2016年10月 September 2015 – October 2016

- 11個案例 (男性：6；女性：5)
- 平均年齡26.8歲(15-46歲)
- 甲基安非他明使用時間2000-2015 (6名自2010年起)
- 平均吸用年期：84個月(15-192個月)
- 7名有吸食其他精神藥物 – 4名氯胺酮(不定期使用及少劑量)
- 9名已停止濫用
 - 戒毒年期- 6.4個月(2-16個月)
- 11 cases (Male: 6; Female: 5)
- MA usage 2000 – 2015 (6 since 2010)
- Mean usage 84 months (15-192 months) by smoking approach
- 7 polysubstance abuse – 4 ketamine (irregular use with small amount)
- 9 patients stopped usage
 - Abstinence time – 6.4 months (2-16 months)

排尿症狀 Voiding symptoms

	甲基安非他明 (N=11) Methamphetamine	氯胺酮 (N=629) Ketamine
出現年期 Duration	21個月(4-48個月) 21 (4-48 months)	37個月(1-144個月) 37 (1-144 months)
尿頻 Frequency	9 (82%)	570 (91%)
尿急 Urgency	6 (55%)	467 (74%)
排尿困難 Difficulty in passing urine	3 (27%)	6 (1%)
排尿不清 Incomplete emptying	3 (27%)	2 (<1%)

排尿症狀 Voiding symptoms

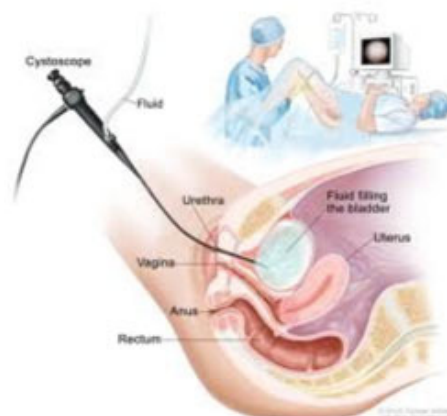
	甲基安非他明 (N=11) Methamphetamine	氯胺酮 (N=629) Ketamine
排尿疼痛 Dysuria	2 (18%)	474 (75%)
上恥骨疼痛 Suprapubic pain	1 (9%)	253 (40%)
血尿 Haematuria	1 (9%)	275 (44%)

排尿症狀 Voiding symptoms

	甲基安非他明 (N=11) Methamphetamine	氯胺酮 (N=629) Ketamine
夜尿 Nocturia	每晚1.9次(1-4次) 1.9 times per night (1-4)	每晚6.9次(1-20次) 6.9 times per night(1-20)
盆腔痛楚及尿急 ／尿頻 病人症狀 尺度(PUF) Pain-Urgency- Frequency (PUF) score	症狀分數 (Symptoms) 9.3 困擾分數(Bothersome) 4.3	症狀分數 (Symptoms) 14.0 困擾分數(Bothersome) 9.2
生活質素 Quality of life	65分 65 marks	56分 56 marks

膀胱軟管窺鏡檢查 Flexible cystoscopy

- 尿道括約肌 – 不能輕易放鬆
Urethral sphincter – not able to relax easily
- 膀胱正常
Bladder normal



性功能 Sexual function

- 3名男病人
Only 3 male patients
- IIEF – 5問卷
IIEF – 5 questionnaires
 - 全部有輕度勃起功能障礙
All have mild erectile dysfunction

中大帶出的訊息 CUHK's message

- 呼籲大眾關注**濫用甲基安非他明也可能引致LUTS**
Appeals for public concern that **methamphetamine abuse can also cause lower urinary tract symptoms**
- 因痛楚並非與濫用甲基安非他明有關的尿路障礙的主要症狀，病人可能會延遲尋求泌尿治療。而缺乏治療有可能令病情惡化至膀胱嚴重損害。
Delay in seeking medical attention may happen because pain is not a predominant symptom in methamphetamine-associated urinary tract dysfunction which if left untreated may progress to severe damage to urinary bladder.

中大帶出的訊息 CUHK's message

- 關於這個嶄新醫學問題的長遠預後的現有知識稀少，我們強烈建議及早戒除濫用甲基安非他明

Little is known about the long-term prognosis of this new clinical entity and early cessation of methamphetamine abuse is strongly advised



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Thank You


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國際勃起功能指標量表(IIEF-5)

在過去六個月以來

		非常低 1	低 2	普通 3	高 4	非常高 5
1. 您對您能夠勃起並維持勃起狀態的信心如何？						
2. 當您在性刺激下勃起時，勃起的硬度足以進入伴侶體內的頻率如何？	沒有性行為 0	幾乎沒有或沒有 1	幾次(比一半少許多) 2	有時候(大約一半) 3	大部份(比一半多許多) 4	幾乎都是或都是 5
3. 在性交過程中，您能在進入伴侶體內之後還能維持勃起狀態的頻率為何？	未嘗試性交 0	幾乎沒有或沒有 1	幾次(比一半少許多) 2	有時候(大約一半) 3	大部份(比一半多許多) 4	幾乎都是或都是 5
4. 在性交過程中，為完成性交而維持勃起的困難程度為何？	未嘗試性交 0	非常困難 1	很困難 2	困難 3	有點困難 4	不會困難 5
5. 當您完成性交時，能讓您滿足的頻率為何？	未嘗試性交 0	幾乎沒有或沒有 1	幾次(比一半少許多) 2	有時候(大約一半) 3	大部份(比一半多許多) 4	幾乎都是或都是 5

正常 >= 21 輕度障礙: 12-21 中度障礙: 8-11 重度障礙: 5-7



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