

小兒遺尿及老年性夜尿之中醫淺談：鄧思敏註冊中醫師

「小兒遺尿」是指3歲以上小兒於睡覺中小便自遺，醒後才發現的一種病症。輕則每周1-2次，多則每晚1次或以上。多見於10歲以下兒童。而3歲以上兒童如因疲勞過度、曾受驚，或睡前多飲而出現偶發性遺尿，則不作病態而論。需要排除因其他疾病所致的遺尿，如尿路感染、脊柱裂、脊髓損傷、癲癇、腦炎後遺症、尿路畸形等，更要排除因夜間怕黑不敢上廁所或想博取注意等原因。家長需正視此病症，以免進一步影響孩子的心理健康。



圖片來源：http://a4.att.hudong.com/28/65/20300543009208144728658378937_s.jpg

遺尿的文獻記載，最早見於《內經》“膀胱不約為遺溺”。中醫認為尿液的生成、排泄與肺、脾、腎、膀胱等臟腑有密切的關係。小兒體質有「臟腑嬌嫩，形氣未充」的特質，意即小孩各臟腑功能未發育成熟，其功能易受各種先天或後天因素影響，如肺、脾、腎功能受影響失常便有機會出現遺尿。以下是此病常見的三種證型：



圖片來源：<http://www.rensheng2.com/upload/2017/01/07/55d1ae3e-bd21-4d2a-b17c-1821eb220320.jpg>

1. 腎氣不足

證候：睡中遺尿，醒後方覺，小便色清而長，神疲乏力，四肢易冷，畏寒，面白少華，智力發育較同齡兒稍差。舌淡或淡黯，苔白，脈沉無力。

《諸病源候論·小兒雜病諸候·遺尿候》說：“腎主水，腎氣下通受於陰。小便者，水液之餘也。膀胱為津液之腑，腑既虛冷，陽氣衰弱，不能約水，故令遺尿也。”

膀胱功用主藏尿液，而腎為「先天之本」，有藏精，主生殖發育，司二便的功能。腎氣的固攝令尿液能藏於膀胱，而腎氣的通利可使尿液能排出體外，這就是腎的開闔作用。因此，若小兒因先天或後天調養不當導致腎氣虛弱，令約束膀胱的功能減低，便可引致遺尿。先天稟賦不足、隱性脊柱裂患兒多屬此證。

2. 肺脾氣虛

證候：睡中遺尿，白天尿頻而量多，氣短自汗，神疲體倦，易感冒或咳喘，食慾不振，便溏。舌淡紅，苔薄白，脈沉無力。

脾為氣血生化之源，而肺主一身之氣，氣有固攝作用。由於肺氣虛致膀胱不能固攝，氣血生化不足而不能涵養先天之本，致腎虛不約膀胱，故而遺尿。此證常見於後天調攝失當(多吃生冷寒涼食物、營養不足)、屢受感冒、或久患咳喘、吐瀉等消瘦體弱的患兒。

肝主疏泄，能舒暢全身氣的運行及調暢情志。小兒表現多煩善怒，肝失疏泄，肝氣鬱結而化熱，熱迫膀胱而致遺尿。此證常見於情緒不穩、睡眠欠安的兒童，部份與泌尿系統感染有關。

3. 肝經鬱熱

證候：睡中遺尿，小便黃而量少，易煩躁，手足心熱，面赤唇紅，目赤，口乾多飲，睡眠欠安，甚或半夜哭鬧。舌紅，苔黃，脈弦數。與之前兩種虛弱的證候有明顯區別，因此不難分辨。

對於小兒遺尿，中醫有以下幾種常用的治療方法。其中較常用的有中藥治療，依據患兒體質的寒熱虛實來用藥，根據「熱則寒之，寒則熱之；虛則補之，實則瀉之」的治療原則，對於腎氣虛寒者可為其溫補腎陽，脾肺氣虛者則為其健脾補肺益氣，對於肝經鬱熱者，便用瀉肝清熱之法。常用的藥物有桑螵蛸、益智仁、金櫻子、覆盆子、烏藥、五味子、菟絲子、杜仲、桑寄生、補骨脂等補腎固澀藥；還有健脾補氣類藥，如北芪(黃芪)、黨參、白術、芡實、山藥等。若辨證準確及堅持服用，患兒一般在1-3個月內情況可改善或痊癒。



圖片來源：http://www.mingpahealth.com/ftp/Health2/20140405/elfe/_05V0018_y.jpg, <https://il.kknews.cc/large/c1200035a0f90c7ab32>

另外，還可配合耳穴治療。將王不留行子或磁珠耳穴貼貼於腎、膀胱、脾、肺、肝、神門、皮質下等耳穴。每穴按壓1-2分鐘，每日2次，其中一次為睡前30分鐘。兩耳交替進行敷貼。

最後還有敷臍法，即在臍部進行中藥貼敷。臍部為神闕穴，選用此穴因局部無皮下脂肪，表皮角質層薄，且臍下兩側佈有豐富的血管網，有利藥物的吸收。一般選用有溫陽固腎功效的藥物，以加強固攝尿液的功能。每夜1貼，連續進行兩星期。

除了接受治療，也要注重對患兒的日常護理。首先要助其養成良好的作息及排尿的習慣，臨睡前控制兒童進水量，晚上少吃含水份較多的瓜果食物，睡前要令小孩排清小便，配合夜間喚醒孩子去排尿。白天避免小孩玩樂過度或進行太劇烈運動，以免夜間疲勞貪睡。平素配合適量運動以增強體質。對於體質虛弱的小童不宜進食生冷寒涼的食物，也切忌食無定時或無定量，以免更傷脾腎。濕熱証者更要少吃煎炸油膩食物。家長切勿怪責打罵患兒，應從旁輔導及鼓勵，以確立他們對治療的信心。

「老年性夜尿」

長者於晚上睡覺期間因尿意而起床小便 2 次或以上，影響睡眠質素，致翌日精神欠佳，屬於老年性夜尿範疇。此病有以下兩種常見的證型：

1. 腎氣虛弱

中醫認為老年性夜尿與腎虛的關係最為密切。腎虛原因大致由退化、久病或勞累過度失於調養引起。症狀可見尿頻而清，尤以夜間為甚，可伴有尿後餘瀝不盡甚或失禁，遺精早泄，腰膝痠軟無力，聽力減退或耳鳴等症狀。

中醫理論有云「腎主封藏」，意即腎能把人體裏的血液、津液、精液和尿液固封、收藏，防止這些物質不正常洩漏。倘若腎的這種功能減低了，血液、津液、精液和尿液便有機會不正常地外洩，形成病態，中醫稱為「腎氣不固」，其中可出現夜尿頻密的情況。

「腎主水」的功能對全身水液代謝有重要作用。腎透過「蒸騰氣化」功能可將有用的清液分開，並將濁液排出體外，成為尿液輸往膀胱。若腎虛致蒸騰氣化無力，則會出現小便清長，次數頻密等症狀。此情況下出現的夜尿頻密，便類似抗利尿激素（ADH）分泌減少的狀態。



圖片來源：http://www.mingpaocanada.com/healthnet/gallery_image/20151121004.jpg

除了接受治療，病者還可配合食療，服用含有黑豆、核桃、栗子、芡實、淮山、白果、黨參、北芪等的湯水也有不錯的補腎縮尿的效果。水果中的覆盆子(Raspberry)，性味甘、酸、微溫，亦有益腎固精縮尿之用。

建議此類病人要進行適當的體育鍛鍊。戒食生冷食物，以免進一步損害脾腎加重夜尿情況。晚餐宜少吃西瓜、冬瓜、粟米等利尿祛濕的瓜果。睡前 3 小時盡量少喝水，特別不要喝茶、咖啡和酒等利尿飲料。如夜間尿頻是因前列腺增生或其他疾病引起，患者應接受針對性的治療。

2. 肝經鬱熱或濕熱下注

除了腎虛，少部份是因為濕熱下注引起夜尿。由於情志不暢，肝鬱化熱擾動膀胱，又或由於飲食不節，濕熱下注膀胱致尿頻，多伴有尿黃渾濁，口乾苦，舌苔黃膩等症狀。部份為尿路感染患者，伴有尿道澀痛，尿血，甚至腰部脹痛等症狀。

對於老年夜尿問題，中藥是最常採用的治療方法之一。由於中醫認為老年夜尿頻多大部份是因為機能衰退引起，所以一般採用補中益氣，固腎縮泉之法。常用的藥物與本文於小兒遺尿部份列出的類似。

針灸也常被採用以配合中藥療法。多選取膀胱經或腎經之穴位，如腎俞、太溪、復溜、崑崙等穴，也常選取小腹位置穴位，如任脈上的關元、氣海都有良好效果。每星期進行 2-3 次，一般以 10 次為一療程。

利用艾條或隔罐溫灸也可改善夜尿的症狀。主要操作穴位為氣海、關元，每日早晚艾薰 15-20 分鐘，有溫經散寒、行氣通絡的作用。症狀嚴重者，可加上艾薰膀胱俞、腎俞和命門來補腎固精。此療法的優點是患者可自行在家中進行。



圖片來源：<https://i2.wp.com/i2.kknews.cc/large/141a00014119a67bf28c>

Primary nocturnal enuresis in Children

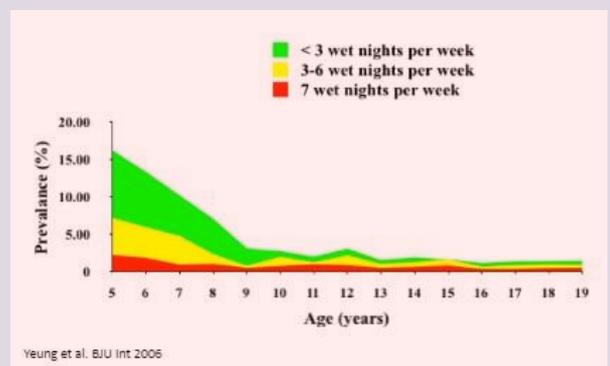
Dr Kenneth Chung, MBBS(HK), FRCSEd (Paed), FHKAM (Surgery), FCSHK

Introduction

Urinary incontinence in children is a very distressing condition not only for the children themselves but also for their parents no matter occurring during the day or night. Primary nocturnal enuresis (PNE) is a common condition affecting the children in Hong Kong. In the past, children were just expected to be able to achieve urinary continence by themselves as they grew older. Only little emphasis was placed on the problem of persistent night wetting and thus frequently these children and their parents just kept the problem to themselves without seeking medical advice. In the recent decade, increasing research in this area provided more knowledge and understanding of this topic including the spectrum of possible underlying voiding dysfunctions that had led to profound changes in the management strategies that often involves a multidisciplinary approach. Moreover, researches in this topic also revealed the possible social and psychological impact on the children and their family. This raised the awareness among families and clinicians.

Epidemiology and Prevalence in Hong Kong

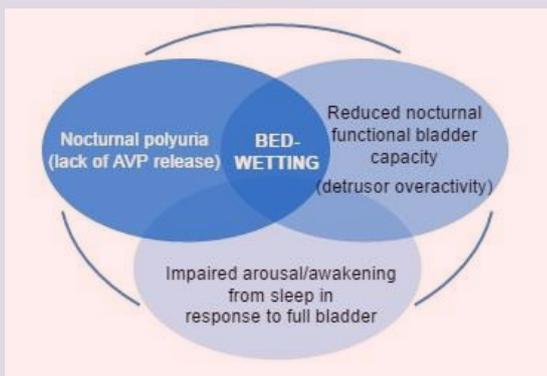
PNE is a common condition affecting the children in Hong Kong. The overall prevalence of PNE in the school children in Hong Kong is 3.1%. Both day and night time symptoms were present in 20% of these children. Study showed that there is reduction in overall prevalence in PNE with increasing age from 16.1% at 5 years old to 2.2% at 19 years old. However this reduction mainly evident among the mild enuretic patients and those with more severe symptoms were more likely to persist into adulthood that the overall prevalence of PNE in adults (16-40yrs) remained at 2.3%.



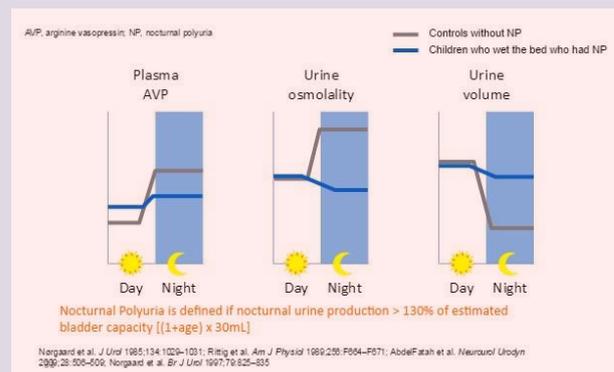
PNE prevalence

Etiology

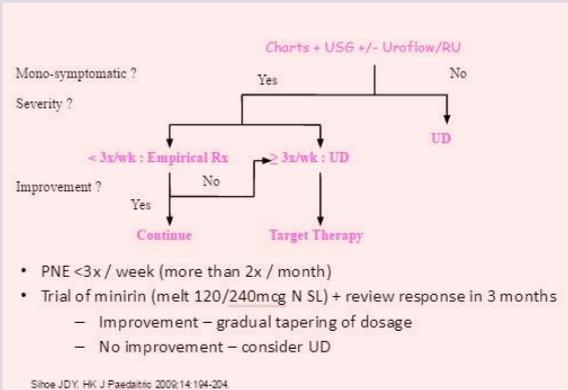
Traditionally, many parents and clinicians believed that PNE was caused by the developmental immaturity of voiding control that patient will eventually grow out of the problem. Therefore patients with PNE were managed conservatively by a “wait-and-see” approach. Many studies looked into the underlying cause of PNE. In the International Children’s Continence Society (ICCS) it is now generally agreed that the key pathophysiology of PNE is due to the mismatch between nocturnal urine production and bladder capacity. The impaired diurnal rhythm of secretion of antidiuretic hormone (ADH) would lead to nocturnal polyuria while detrusor overactivity could reduce the nocturnal functional bladder capacity causing such “mismatch”. Studies also showed that these children with PNE would have lighter sleep due to long-term overstimulation by signals from a relatively full bladder, but at the same time paradoxically having a higher arousal index i.e. more difficult transition from light sleep to complete awakening. These 3 factors interrelated with each other that caused the occurrence of PNE.



Pathophysiology



ADH diurnal variation



Treatment flowchart

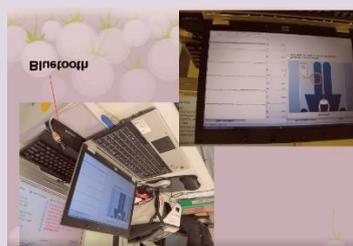
Evaluation

Detailed history should be taken to accurately diagnose the condition according to the terminology introduced and agreed by ICCS. PNE is defined as persistent bedwetting over 5 years old without being dry for a period of over 6 months. It can be further classified as monosymptomatic and non-monosymptomatic nocturnal enuresis according to whether daytime lower urinary tract symptoms were present. It is important to exclude organic cause of urinary incontinence in our evaluation. In the history taking, the presence of any congenital abnormalities, neurological conditions and bowel functions should be obtained besides the actual detailed of

urinary symptoms. The mental status, schooling and family issues should be explored to assess the impact PNE on daily activities. Physical examination should be performed to exclude possible neurological or anatomical abnormalities that includes the examination of the spine, lower limb neurological examination, palpate abdomen for any palpable or expressible bladder, per rectal examination to examine the tone and to inspect the genitalia for any anatomical abnormalities.

Frequency-volume and bedwetting charts are the most important first line investigation that should be done in every patient with PNE because these can give us invaluable information for our subsequent management. Daily fluid intake, urine output, frequency and bladder related symptoms at home under normal conditions should be recorded in FV charts and the frequency of bedwetting should be recorded in bedwetting chart. Ultrasonography of the urinary system can be done to rule out anatomical abnormalities. Other investigation can be performed if necessary in accordance to the clinical or investigation findings, including urinalysis, x-ray spine, micturating cystourethrogram, uroflowmetry and urodynamic studies.

Urodynamic studies describe the physiological parameters of the bladder during filling and voiding phase. Bladder filling and storage can be described according to bladder sensation, detrusor activity, bladder compliance and bladder capacity. It is usually reserved for those with suspected neurological conditions, moderate to severe PNE (3 or more wet nights per week) especially with the presence of daytime urinary symptoms. It is done in specialized centres involving the introduction of a bladder catheter and rectal tube.



Urodynamic Study

Management

• ICI recommendations¹

Treatment	Level of evidence	Grade of recommendation
Pharmacological treatments		
Antidiuretics (desmopressin)	1	A
Tricyclic antidepressants	1	C (cardiotoxicity)
Anticholinergics	2	B
Conditioning treatments		
Alarm	1	A
Dry bed training	2	D
Arousal training	3	C

• EAU/ESPU recommendations²

- Antidiuretics (desmopressin): Level 1, Grade A
- Alarm treatment: Level 1, Grade A
- Imipramine: Level 1, Grade C (cardiotoxicity)

EAU, European Association of Urology; ESPU, European Society for Paediatric Urology; ICI, International Consultation on Incontinence

1. Abrams et al. Fifth Edition 2013. Available from: <https://www.uroweb.org/publications/other-publications/>, 2013.
 2. Telgöl S et al. European Society for Paediatric Urology © European Association of Urology 2014. Available from: http://www.uroweb.org/gis/pdf/23%20Paediatric%20Urology_LR%20March%202014.pdf (Last accessed June 2014), 2014.

Treatment recommendations

Clinicians and urotherapists work in close collaboration to manage children with PNE. Urotherapy includes behaviour modification, education, biofeedback, pelvic floor exercises, neuromodulations and so on. Bowel management is important aiming at maintenance of regular soft stools and rectal emptying of any impacted stool due to the close proximity between the bladder and rectum.

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Announcement

2017

1. **World Continence Week (Co-organised with Hong Kong Association of Gerontology)**

21 June 2017

Venue: please visit our website: www.hkcs.hk

2. **2017 Annual Meeting of the International Continence Society**

www.ics.org/2017 (Sept 11-15, 2017) at Florence, Italy

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