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SPECIAL CONTRIBUTION

Urogynecology in Taiwan: past, present and future

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If a man takes no thought about what is distant, he will find sorrow near at hand.

Confucius (551–479 B.C.)

The past

Thirty years ago, when I was still a resident doctor, once the urinary bladder or ureter was injured during pelvic surgery, the only doctor who would come to the gynecologists' aid to repair the injury was the urologist. Gynecologists in our hospital were not aware of the basic teachings for the repair of vesicovaginal fistula by Marion Sims [1], the father of gynecology, or Howard Kelly, gynecologist who was the first to successfully repair a cut ureter in 1890 [2]. I started my urogynecologic career with the repair of the iatrogenic lower urinary tract (LUT) injuries since 1983 [3, 4].

Several years later, bead-chain cystourethrography and Marshall–Marchetti–Krantz retropubic urethropexy were introduced to the gynecologists on this island. However, the practice of urogynecology was limited to the diagnosis and treatment of urinary stress incontinence (USI). Meanwhile, the gynecologists still argued over the preference of the surgical procedures used for women with USI. Some felt that anterior colporrhaphy with Kelly plication should be used first, and retropubic urethropexy should only be used if the former fails. Urodynamic testing equipment was also scarcely used at that time; only the urological section of certain medical centers owned the privilege.

The first female urinary incontinence clinic in Taiwan was not set up until I returned to Taiwan after finishing my urogynecology training program in Australia in 1984. Since then, cystourethroscopy and transurethral surgery under the guidance of the instrument as well as multiple surgical therapies, including Stanton–Tanagho colpocystourethropexy, fascia lata sling operation, Stamey's needle suspension, and abdominal perineal urethral suspension, have been introduced and used to treat Taiwanese women with USI. However, there were only a few gynecologists practicing urogynecology at that time.

The present

We have been increasingly aware that women with LUT diseases including urinary incontinence, irritative bladder symptoms, voiding dysfunction, and pelvic floor dysfunction have been increasing in the last 15 years. Most of the local gynecologists who are dealing with these problems have not received formal urogynecologic training. Both the diagnosis and the treatment of urogynecological disorders were increasingly contentious. However, the situation is improving since certain medical centers are able to provide a special skills module such as urodynamics, primary repair of pelvic organ prolapse, and USI. Table 1 presents the hospitals which provide urogynecologic service within the framework of gynecology department and three incontinence-related societies are shown in Table 2. However, more efforts are needed to improve our clinical

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practice and research as well as to keep pace with our colleagues in North America, Europe, and Scandinavia where far more advanced diagnostic and surgical techniques as well as scientific research are being carried out.

For a long time, I have noticed that the urogynecologists here in Taiwan religiously believe in the capability of urodynamic recording techniques as well as the accuracy of such parameters as pressure transmission ratios and detrusor pressure acceleration. Current urodynamic techniques are not precise, as they can only give some indirect information about the origin of urinary incontinence or other LUT problems. This seems to have diverted them from investigation into the basic structure and biochemistry of the LUT. Ulf Ulmsten, the originator of one of the frequently used urodynamic technique—urethrocystometry and urethral pressure profile recording with microtransducers, once said "in my opinion pressure changes within the urethra, and to some extent within the bladder, are mainly secondary phenomenon emanating from physiological or pathophysiological events in structures outside these organs." Therefore, the urogynecologists should understand the tentative limitations of urodynamics and the importance of "back to basics" should also be appreciated. The basics are referred to the scientific investigation of "cells and molecules" of structures inside and outside the bladder and urethra [5].

Although there are at least five tertiary referral centers in Taiwan now and the scientific writings of local contributors to various international or local journals are increasing, the capacity for the enrollment of fellowship applicants is still lacking. So far, there is only one recognized training program registered on the urogynecology fellowship training program site directory of IUGA Unit of Urogynecology, Chang Gung University Hospital at Taoyuan. We urgently need to offer more qualified preceptorship to our local colleagues. Additionally, as the clinical workload, teaching/training program, research, the number of teaching staff, and collaboration with related disciplines which a hospital can offer vary here in Taiwan, it would be beneficial if those trainees can go to other centers to undertake a special skill that is not provided in their original training posts.

Table 1 Hospitals providing urogynecology services in gynecology department

Northern Taiwan	1. Chang Gung University Hospital
	2. National Taiwan University Hospital
	3. Taipei Medical University
	4. Mackay General Hospital
	5. Veteran General Hospital (Taipei)
	6. Cathay General Hospital
	7. Municipal Taipei City Hospital
	8. Cheng Hsin Rehabilitation Medical Center
	9. Far-East General Hospital
Central Taiwan	1. Chung Shan Medical University
	2. China Medical University
	3. Christian Chang Hwa Hospital
	4. Veteran General Hospital (Taichung)
Southern Taiwan	1. Chang Gung Memorial Hospital at Kaohsiung
	2. Veteran General Hospital (Kaohsiung)
	3. Chi-Mei General Hospital
	4. Kaohsiung Medical University

Table 2 Urinary incontinence-related societies

1. Taiwan Association of Female Pelvic Floor Education (TAFPFE)
2. Taiwanese Continence Society (TCS)
3. Taiwan Urogynecology Association (TUGA)

For the purposes of disseminating and exchanging the relevant information in Asia, the Pan-Asian Urogynecologic Association (PAUGA web—www.pauga.org.tw) was founded in 2005 in Taiwan. The members include Taiwan, Japan, The People's Republic of China, Malaysia, Thailand, Philippines, India, Singapore, Indonesia, and the Arab Emirates. The education committee of the society has decided on the guidelines for exchanging training programs between countries and the criteria for selecting PAUGA designated training centers for female pelvic medicine and reconstructive surgery. The exchange-training program will give the trainees an opportunity to learn at different medical centers with particular strengths in this field. Hopefully, the input of this organization can be of benefit to them. For the scientific meeting of this society, the first biennial meeting was held in September, 2006 in Taipei and the second one was in September, 2008 in Hong Kong. In addition, the 33rd annual meeting of the IUGA was held in Taipei in September, 2008.

The future

Regarding the future of a urogynecologist's career in Taiwan, he/she will be in great demand in workforce. In order to meet this requirement, those district general hospitals, secondary and tertiary centers where can provide subspecialty training are obliged to offer career guidance in order to make realistic decisions about further subspecialty training for resident doctors. Those subspecialists work with university hospitals have more resources than others. Hopefully, they could make a commitment to set up multidisciplinary teams and an integrated service as well as provide evidence-based practice as per international standards which is likely to get Taiwanese urogynecology back on track.

The emerging bio-engineering application in the treatment of LUT disease is extremely important since the traditional or several innovative treatment measures are either unsatisfactory or are still considered risky and experimental. Meanwhile, improvements for the current mode of treatment are needed before the launch of bio-engineering application in urogynecology; for the spectrum of adverse events, the meshes used for the surgical treatment of USI or pelvic organ prolapse are problematic for instance. Thus, clinicians and biomedical engineers in Taiwan need to get together and attempt to speak the same language regarding the invention of an ideal mesh.

Last but not least, a compulsory national registry of indications, complications, and outcome for all experimental anti-incontinence and pelvic reconstructive procedures should be undertaken by the health department of the government.

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