OPINION :

Urogynaecology Training in South East Asia (SEA) and Asia

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South East Asia (SEA) is made up of 11 countries (Vietnam, Laos, Cambodia, Thailand, Myanmar, Malaysia, Singapore, Brunei, Philippines, Indonesia and Timor Leste) from Myanmar in the northwest to Timor Leste in the south east. It is one of the most far flung region in Asia, with a land mass of 4.5 million km^2 and its population of 641 million makes it the third most populous geographical region in the world after South Asia and East Asia. Asia is the world's largest and most populous continent stretching from Japan in the east to West Asia (Middle East) in the west, with a population of 4.567 billion.

A urogynaecologist is a specialist in obstetrics and gynaecology who is trained and assessed as being competent in the comprehensive management of patients with genitourinary female gynaecology. His/her continued medical activity is in gynaecology with at least 50% of his/her work being in urogynaecology. He/she works at least in part in an institutional setting where comprehensive management of urogynaecology is performed, including diagnostic and therapeutic procedures, research and all effective forms of therapy and total care of the patients' genitourinary problems or complications resulting therefrom. The Royal Australian College of Obstetricians and Gynaecologists (RACOG) recommends 1 urogynaecologist for a population of 500,000* (Table 1. & 2.)

Urogynaecological training in SEA is as diverse as its multi-racial, -religious and -cultural population and gross domestic product (GDP). There is a formal/ structured national training program in urogynaecology in at least 5 of the SE Asian countries (Table 1.). Among the other SE Asian countries, I am not aware of any formal urogynaecology training program. Myanmar began providing urogynaecological services at the Central Women's Hospital, Yangon under Prof Mya Thida after the IUGA eXchange Program in 2015.

Urogynaecological training in Asia

I have information for three Asian countries with another three without a formal urogynaecological training program (Table 2). Unfortunately, I could not obtain information for the rest of Asia, including South Korea.

The Internatiional Urogynecological Association (IUGA) has organized eXchange Programs for countries where Urogynaecology is in its infancy or non-existent or practised by gynaecologists: India (2006 & 2007), Philippines (2008 & 2010), Jordan (2009), Kazakhstan (2009), China (2011, 2013, 2017, 2018 & 2019), Malaysia (2012), Thailand & Myanmar (2015); Regional Symposia where Urogynaecology is more established: Hong Kong (2009), Singapore (2012), Saudi Arabia (2012), Indonesia (2013), Malaysia (2016), Japan (2017) and India (2018).

Pelvic Organ Prolapse (POP)

Many to most urogynaecologists perform vaginal hysterectomy with or without salpingectomy/salpingo-oophorectomy, McCall culdoplasty; anterior and posterior colporrhaphy/repair; Manchester-Fothergill repair; partial (LeFort) and complete colpocleisis, Sacrospinous ligamemt cervicopexy/colpopexy; abdominal hysteropexy/sacrocolpopexy. Less are performing the latter two laparoscopically/robotically, mainly in Japan, South Korea, Taiwan and Singapore by urogynaecologists, minimally invasive gynaecologists and urologists.

Augmented synthetic self-cut mesh surgery for POP is more commonly performed by urologists~~ts~~ and some urogynaecologists in Japan where pre-cut synthetic mesh kits are not licenced by the national medical regulatory authority. Pre-cut synthetic mesh kits are performed mainly by urologists in South Korea; some urogynaecologists in Taiwan, Hong Kong, Singapore, Thailand, Malaysia, Indonesia and India. Some urogynaecologists perform both self-cut and pre-cut synthetic mesh kits in China. The usage of pre-cut synthetic mesh kits would depend on government funding, insurance reimbursement or private funding as they are expensive, require training and mentorship.

Their use have decreased markedly in view of the USA FDA warnings[1] and latest press announcement[11], NICE Guidelines[2,9], international statements (SCENIHR)[3], Cochrane systemic reviews[4,5,6], Prospect Trial[7], Scottish Independent Review[8], medico-legal action, anti-mesh patient groups, negative mass[10] and social media, especially in the USA, UK, Australia and New Zealand.

In December 2017, the Australian Therapeutic Goods Administration (TGA) removed from the market all urogynaecologic surgical mesh products (for POP) due to the safety concerns. In 2018, the United Kingdom and Ireland temporarily stopped the use of all surgical meshes placed vaginally. In 2018, Scotland stopped all transvaginal mesh procedures until a new "restricted use protocol" could be developed. On 16 April, 2019, the USA FDA[11] ordered all manufacturers of surgical mesh intended for transvaginal repair of anterior compartment (cystocele) [Boston Scientific and Coloplast] to stop selling and distributing their products immediately. The FDA has determined that the manufacturers have not demonstrated reasonable assurance of safety and effectiveness for these devices, since they were reclassified as Class III (high risk) in 2016. Posterior vaginal mesh kits have been voluntarily withdrawn by the manufacturers since 2016.

Vaginal meshes for POP should not be used routinely for primary POP repair but reserved for previous failed native tissue POP repair, with informed consent, clinical governance of adequate training, experience, data base recording of results and complications, audit and multidisciplinary team to manage such surgeries and their complications of mesh exposure, dyspareunia/hispareunia, injury to bladder, rectum, bowels, nerves, vessels, bleeding, granulation tissue, infection and fistulation. Please refer to the latest NICE Guideline on the management of urinary incontinence and POP in women[9].

Fistulae Surgery

Obstetric genitourinary fistulae surgery are performed more commonly in the Indian subcontinent and Indonesia by gynaecologists/urogynaecologists. Gynaecological genitourinary fistulae resulting from gynaecological or laparoscopic surgery, usually hysterectomy, are repaired by gynaecologists, urogynaecologists, urologists and colorectal surgeons, sometimes jointly.

Table 1. Urogynaecological training in South East Asia

Country	Pop (m)	Recommended no. UGs*	Actual no. UGs	Training Program (yrs)	No. Training Centres
Indonesia	240	480	55	3	1 (3 after Jul '19)
Philippines	94	188	16	2	1
Thailand	64	128	18	2	4
Malaysia	28	56	27	3	8
Singapore	5.5	11	14	2-3	3

Table 2. Urogynaecological training in Asia

Country	Pop (m/b)	Recommended no. UGs*	Actual no. UGs	Training Program (yrs)	No. Training Centres
Hong Kong	7.4 m	15	11	3	2
Taiwan	23.6 m	47	35-50	2-3	13 (2 accepts international Fellows)
China	1.386 b	2782	30 (URPSSC members)	Nil	NA
Japan	126.8 m	254	460^{+}(Gyn-16K); 490^{+}(Uro- 8K) ($^{+}$JSPFM members)	Nil	NA
India	1.339 b	2678	10	Nil	NA
Saudi Arabia	32.9 m	66	25	3	1

Stress urinary incontinence (SUI)

Most urogynaecologists from developed countries are using the mid-urethral tapes/slings, both retropubic and transobturator; some perform open or laparoscopic colposuspension. In developing countries, gynaecologists are still performing Kelly plication, and urogynaecologists, open Burch colposuspension and mid-urethral tapes/slings, depending on the available government, insurance or private funding. Some to many urogynaecologist, urologists from Urogynaecology and Urology training centres or University departments perform pre-operative urodynamics for POP and SUI. Either physician or physiotherapist supervised pelvic floor exercises are usually offered and taught before surgery for SUI.

The latest NICE Guideline for urinary incontinence[9] on the use of mid-urethral, mesh sling procedures for SUI: Consider using a type 1 macroporous polypropylene retropubic sling; do not use the top-down approach or single-incision sub-urethral short mesh sling insertion except as part of a clinical trial; do not offer a transobturator approach unless there ae specific clinical circumstances, for example, previous pelvic procedure(s) in which the retropubic approach should be avoided.

Overactive bladder (OAB)

Most urogynaecologists and urologists~~ts~~ are managing OAB patients with conservative lifestyle modification, pelvic floor exercises, bladder training and medical treatment with topical oestrogens, musculotrophics, anticholinergics, calcium channel blockers, tricyclic anti-depressants and anti-diuretic hormone (DDAVP). Some urologists and urogynaecologists are treating intractable OAB with intravesical Botulinum injections, neuro-modulation of the posterior tibial nerve or Sacral 3 nerve root.

Conclusion

The training and practice of urogynaecology in Asia is very diverse. Public (governmental, institutional and educational), charitable and private funding are paramount, especially with the ageing population in Asia. There should be more teaching of applied anatomy and physiology, training in native tissue repair for POP in view of the cost, training, complications, reoperations and medicolegal implications of vaginal synthetic mesh repair for POP. There should be more urogynaecological training centres with rotation to urology and colorectal surgery. Formal urogynaecological training programs should emphasise systematic documentation of urogynaecological symptoms and signs, quality of life questionnaires pre- and post-conservative, -medical and -surgical treatment, accurate operative documentation, data bases, audit, multi-centre, multi-national collaboration and research should be the current and future practice to advance urogynaecology to the next level.

Most or nearly all SE Asian and Asian countries are not and will not be able to provide the adequate ratio of 1 urogynaecologist per 500,000 population. Hence, it is only prudent to train all or most gynaecological and specialist urogynaecological nurses to manage most urogynaecological patients including making vaginal hysterectomy with McCall culdoplasty and pelvic floor (anterior and posterior) repair core (basic) surgical training for gynaecologists; prevention and surgical treatment of obstetric and gynaecological urinary- and ano/recto-vaginal fistulae and obstetric anal sphincter tears for obstetricians & gynaecologists and urogynaecologists.

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