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Editorial

Functional and reconstructive urology (part one)

Dear Colleagues,

It is a great honour that the *Asian Journal of Urology* has agreed to host two special issues on the subject of functional and reconstructive urology and to introduce the first of these editions.

In an era when technology has come to the fore in urological practice with new developments (not only in terms of the equipment used to facilitate minimally invasive surgery but also developments such as the robot which have revolutionised access to laparoscopic surgery), it is very important to realise that functional and reconstructive urology still remains an important cornerstone of urological practice.

With the ageing population and the increasing number of patients presenting with disorders of function relating to the lower urinary tract, this is a great opportunity for us to look at some of the key areas where advances are being made in contemporary practice.

The article by Qingsong Zou and colleagues [1] considers tissue engineering for urinary tract reconstruction and repair, highlighting recent developments in the field, particularly within China. In addition the article by Abdulmuttalip Simsek and colleagues [2] reviews the challenges in tissue engineering relating to the urethra. A key issue that needs to be acknowledged is that the limiting factor in terms of the tissue engineering used in these techniques is the level of understanding we have as to the underlying structure and functional innervation of any tissue. Without a clear understanding of this it is not possible for us to adequately engineer new tissues. It is very clear in the context of the urethra that the challenges faced are far simpler, in that one is having to reproduce a vascularised tube, whereas if one considers other more complex structure such as the bladder where we have a very complicated organ whose innervation and pharmacological mechanisms involved are not as yet fully understood. It is clear that many of these challenges will be overcome in future years and clearly bioengineering is going to become increasingly important as our level of knowledge develops.

An important role for the reconstructive urologist is in the management of the damaged urethra. Whilst many of these patients have an idiopathic aetiology, it is well recognised that inflammatory changes and in particular trauma can result in catastrophic damage to the urethra. Pelvic fracture injuries are an important cause of significant damage to the posterior urethra and this is reviewed in detail by Sanjay B. Kulkarni and colleagues [3] and Yumeng Zhang and colleagues [4]. The contemporary management of anterior urethral stricture disease is summarised by Li Cheng and colleagues [5].

Happily iatrogenic ureteric injury is uncommon with modern endourological surgical techniques, but prevention of strictures occurring as a result of urethroscopic lithotripsy is important and this is outlined in a comprehensive review from Hao Dong and colleagues [6]. The management of iatrogenic urethral injury and strictures is summarised by Philipp Gild and colleagues [7].

This special issue provides a comprehensive overview of a number of important aspects of reconstructive urology in contemporary practice.

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Christopher R. Chapple, M.D., Guest Editor of this issue,
Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK
E-mail address: c.r.chapple@sheffield.ac.uk

Qiang Fu, M.D., Guest Editor of this issue,
Department of Urology, Shanghai Jiao Tong University Affiliated 6th People's Hospital, Shanghai, PR China
E-mail address: jamesqfu@aliyun.com

Chuanliang Xu, M.D., Guest Editor of this issue,
Department of Urology, Changhai Hospital, Second Military Medical University, Shanghai, PR China
E-mail address: xuchuanliang@vip.126.com