Paediatric urology*

Paediatric urology in the last decade has become a well accepted sub-speciality and deals with diseases of the urinary and genital tracts of children. It includes a wide range of conditions that are both birth defects and acquired conditions, all having a spectrum of severity that ranges from causing early death or renal failure to the social burden of incontinence. To develop a consortium for providing excellence in paediatric urology care, the KLES Kidney Foundation, Belgaum organized an international paediatric urology workshop. It aimed at disseminating information and to discuss and debate controversial issues in the continuously evolving field of urology. There were 96 participants from different healthcare institutes of India and USA. To provide clinicians with conclusive India-specific recommendations and reliable solutions, all based on current up-to-date knowledge on the following topics, viz. vesicoureteral reflux (VUR), exstrophy bladder, pelviureteric junction obstruction, undescended testes, and voiding dysfunction. Mallikarjuna Reddy (KLES Dr Prabhakar Kore Hospital and MRC, Belgaum) welcomed the experts delegates and highlighted the scientific content of the workshop and introduced the first session on VUR, which is a developmental defect of abnormal insertion of the ureter into the bladder causing retrograde flow of urine into the upper urinary tract. It may also be caused by lower urinary tract dysfunction. The most important complication of VUR, which affects 1% of children is an increased risk of upper urinary tract infection leading to renal scarring and damage. Few issues in paediatrics generate as much controversy as the management of this disease. Diagnosis, treatment and long-term management, as well as the overall importance of this clinical entity, in renal function and development, have all been scientifically researched, especially during the past 10 years. Rama Jayanthi (Children’s Hospital, Columbus, Ohio, USA) spoke on ‘What is new in VUR?’, grading of VUR as well as role of prophylactic antibiotics in VUR. Aseem R. Shukla (Director of Paediatric Urology, University of Minnesota, USA) shared his experiences in endoscopic/laparoscopic/robotic management of VUR. Shyam Joshi (Jaslok Hospital, Mumbai), shared his experiences in open surgical management of VUR. Complications are fortunately uncommon, and are due to preoperative planning errors or errors in operative techniques. P. Venugopal (Mangalore) in his review gave a historical description and noted that VUR was identified as early as AD 129-216 by Galen. He also noticed the variations in incidence of VUR in different ethnic groups. In India, even today, we have no clear concept of incidence and we rely on western statistics. Imaging modalities for diagnosis of VUR and open surgery remain the gold standard for the treatment of VUR. All other modalities of treatment compare their efficacy to open re-implantation.

Incidence of exstrophy bladder is 1 in 10,000 to 1 in 50,000. Aseem R. Shukla spoke on ‘What is new in exstrophy’, recent advances in the surgical reconstruction of the bladder and genitalia. V. Sreepathi (Sundaram Medical Foundation Children’s Hospital, Chennai) deliberated on single stage repair. Mohan Gundeti (Director and Chief, Pediatric Urology, Children’s Hospital, University of Chicago Medical Center, USA) demonstrated the multistage repair procedure in exstrophy bladder. Shyam Joshi shared his experiences on long-term issues in exstrophy bladder. The diagnosis of ‘ureteropelvic junction (UPJ) obstruction’ results in a functionally significant impairment of urinary transport from the renal pelvis to the ureter. Mallikarjuna Reddy spoke on definition and diagnosis of UPJ obstruction and open surgery, definition of long-term success. Shyam Joshi spoke on open surgical management and Rama Jayanthi on laparoscopic surgery. Aseem Shukla discussed advantages of robotic surgery with videos. Mohan Gundeti discussed alternative management of UPJ in complex renal anomalies. The cause of undescended testes is multifactorial. An undescended testis can be located anywhere between the abdominal cavity and just outside the anatomic serotum. Less commonly, the testis can also migrate to ectopic positions outside the scrotum, not along the normal path of descent. Chandra Singh (CMC, Vellore) spoke on controversies in management, timing and counselling. Mallikarjuna Reddy spoke on evaluation of a nonpalpable testis. V. Sreepathi described the laparoscopic orchiopexy. Rama Jayanthi spoke on long-term issues related to undescended testes and shared his experiences at the Children’s Hospital, Columbus, Ohio, USA. The relative infrequency of these conditions emphasizes the need for multicentered clinical studies with the requisite infrastructure of database management, registries, and data analysis centres. Our increased understanding and recognition of lower urinary tract dysfunction as a cause of various urologic disorders in childhood has had a profound influence on our management strategies over the past decade. Venkatesh Krishnamoorthy (NU Hospital, Bangalore) spoke on dysfunctional elimination syndrome. It is a group of abnormal holding and disturbed voiding patterns seen in children with no anatomical or neurological disease. Overactive detrusor, inability to relax the pelvic floor during voiding (dysfunctional voiding), lazy bladder (underactive detrusor), combined bladder and bowel emptying dysfunction (DES), end stage dysfunctional voiding (upper tract changes) are the types of voiding dysfunctions. Multidisciplinary approach including high fibre diet and regular bowel movement are required to treat voiding dysfunction. Rama Jayanthi spoke on valve bladder syndrome. Two live operative sessions were demonstrated during the workshop: DEFUX injection for VUR and hypospadias repair. Paediatric urology is an ideal portal to study the critical aspects of many disease processes and developmental anomalies.

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