

NEUROPATHIC BLADDER

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A myelomeningocele, lipomyelomeningocele, fatty filum or an occult tethered cord can cause a neuropathic bladder that may need lifelong care to protect the kidneys from high urinary pressures and reflux, and support continence and independence - where appropriate. If reconstructive surgery is needed, it must follow detailed assessments of (i) the adequacy of the bladder neck/sphincter complex, (ii) bladder capacity, (iii) the need for a cutaneous catheterisable channel, and (iv) any associated faecal continence procedures. Bladder neck procedures include endoscopic injections, slings, reconstructions and bladder neck closure. Bladder capacity and compliance can be increased with a bladder augmentation (e.g. ileocystoplasty), which takes the pressure off the upper tracts. An appendicovesicostomy - (Mitrofanoff), using the appendix as a conduit between the skin and the bladder, allows intermittent catheterisation as an alternative to urethral catheterisation (Figure 20.9).

Isolated bowel used to
enlarge/augment the natural
bladder Mitrofanoff 'stoma' Ureter
Catheter Bladder Urethra
Mitrofanoff catheterisable channel
constructed from isolated
appendix or small bowel Figure
20.9 Mitrofanoff
appendicovesicostomy draining an

ileo

cystoplasty, which augments and converts a high-pressure bladder into a low-pressure system to protect the kidneys in a patient with a neuropathic bladder.

Testicular tumours are rare. Most prepubertal tumours arise before 3 years and are benign, allowing testis-sparing surgery. Malignant tumours in older boys require an orchidectomy (performed through the groin) and selective chemotherapy. Germ cell tumours include the teratomas and epidermoid cysts (typically benign) and the malignant yolk sac tumours, seminomas, choriocarcinomas and embryonal carcinomas. Gonadal stromal tumours are typically benign and include Leydig cell tumours, Sertoli cell tumours, juvenile granulosa cell tumours and gonadoblastomas. Franz von Leydig, 1821–1908, German zoologist and comparative anatomist, discovered the Leydig cells. Enrico Sertoli, 1842–1910, Italian physiologist, discovered the Sertoli cells of the testis. Grinspon RP, Rey RA. Disorders of sex development. In: Kovacs C, Deal C (eds). Maternal-fetal and neonatal endocrinology. San Diego, CA: Academic Press, 2020: 841–67. Gundeti MS. Surgical techniques in pediatric and adolescent urology. Delhi: Jaypee Brothers Medical Publishers, 2019. Hutson JM, Thorup JM, Beasley SW. Descent of the testis. Cham: Springer, 2016. NEUROPATHIC BLADDER

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