Enuresis

Enuresis

Enuresis, or bedwetting, describes urinary incontinence during sleep in any child over the age of 5 years, in the absence of - congenital or acquired neurological disorders. Monosymp - tomatic enuresis (MSE) is defined as enuresis without any other urinary symptoms; primary MSE describes those who have never achieved night-time continence, whereas secondary MSE refers to those who de velop enuresis after a dry period of at least 6 months. Enuresis with any daytime LUTS is defined as non-monosymptomatic enuresis (NMSE). By 15 years of age 1–2% will su ff er from enuresis and the prevalence in adults is 0.5%. /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF β /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF β /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF Investigation Three underlying pathophysiological mechanisms are predominantly implicated in enuresis and should be evaluated clinically . 1 Nocturnal detrusor overactivity and reduced nocturnal bladder capacity . Up to half of all children overactivity or reduced functional capacity , in the absence of nocturnal polyuria. Patients should be investigated ini - tially with a bladder diary to assess daytime and night-time frequency and incontinence episodes, as well as to assess functional capacity . Urodynamics should be reserved for those who fail initial therapy; if detrusor overactivity is present then patients should be managed with antim usca - rinics or β -agonists. 3 2 Nocturnal polyuria . Increased nocturnal urine pro - duction (defined as a nocturnal urine output exceeding 130% of expected bladder capacity for age), which may be due to increased intake or underlying medical conditions, should be identified on a bladder diary and investiga ted further if present (e.g. diabetes insipidus, obstructive sleep apnoea). 3 Arousal and sleep disorders . Children with enure - sis are typically unable to wake from sleep to void, and it is thought that arousal disorders may account for part of the pathogenesis of this condition. Evaluation by a sleep specialist should be consider ed as part of the management strategy for children in whom sleep disorders are suspected. Treatment The treatment of enuresis consists initially of behavioural management techniques. These include fluid modification (night-time fluid restriction, reducing sugary , ca ff einated and fizzy drink intake), bedwetting alarms, star charts and rewards systems, and maintaining regular bowel habits. If this fails to improve symptoms and the child is experi - encing distress from these symptoms, pharmacological therapy should be considered. Desmopressin, a synthetic analogue of antidiuretic hormone, is best suited for those with nocturnal polyuria with normal bladder function, wher eas antimusca - rinics and β -agonists should be considered for those with low 3 functional capacity or those who have failed to respond to des - mopressin.

tract dysfunction. Storage-phase Treatment options disorder CISC Low compliance/ detrusor Overnight catheter drainage overactivity/low Pharmacological therapy a capacity Antimuscarinic -agonist 3 Minimally invasive therapy Intravesical BTX-A Surgical therapy Augmentation cystoplasty Urinary diversion Low outlet Bladder neck bulking agent injection resistance Bladder neck sling or bladder neck reconstruction Arti /f_i cial urinary sphincter Voiding-phase disorder Detrusor–sphincter CISC a

dyssynergia Overnight catheter drainage Pharmacological therapy Antimuscarinic -agonist 3 Minimally invasive therapy Intravesical and intrasphincteric BTX-A Neuromodulation Surgical therapy Augmentation cystoplasty Urinary diversion Detrusor CISC underactivity Overnight catheter drainage Neuromodulation BTX-A, botulinum toxin A; CISC, clean intermittent self

catheterisation. a Risk of renal function deterioration. (a) (b) Figure 83.10 Urachal anomalies. (a) Normal; (b) patent urachus;

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