Short Communication

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# 2nd International Conference on Gastroenterology & Urology: Enuresis and combination treatment modalities- Shikha Mishra - Assam Medical School, India

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Nocturnal Enuresis is reported as one of the most common urologic complaints in pediatric patients throughout the world. The stressful, stigmatizing condition of enuresis purportedly reaching prevalence rates 14% (male dominance 16% versus female 12%) represents organic underlying pathology, genetic predisposition, psychological and emotional triggers, and commonly standard maturation process implying majority self-resolution. Potential domestic and interpersonal detrimental outcomes necessitates appropriate management via social, educational, therapeutic avenues, demanding apace awareness and ensuing counsel. Primary classification is reserved for patients having never attained aneuretical status, in contrast to Secondary Enuresis describing regression to enuresis episodes post dryness attainment for more than six months. Reinforcement methods including automated moisture triggered devices and other parent-caregiver-child behavioral modification strategies are plausible primary approaches, to be followed by more aggressive measures in cases persisting with advancing age, after necessary investigation for alternative organic explanations and proper disease classification. Pharmacological approaches in those greater than six years is more appropriate but flexibility can be applied individually based on motivation, and familial factors. Desmopressin monotherapy initiation along with regulation of fluid intake schedules tends to be among first line after establishment of normal functional bladder capacity. Similarity in mechanism between Desmopressin and AntiDiuretic Hormone effectively reduce diuresis. Desmopressin monotherapy demonstrates 30% total dryness and additional approximate 40% patients with partial improvement. Relapse rates with monotherapy being 65% reduced to 46% with Desmopressin and alarm combination. Multiple other drugs are seen in clinical practice including but not limited to tricyclic antidepressants, anticholinergics, indomethacin and diazepam, various combinations employed with varying degrees of success. Amitriptyline, Nortriptyline, Imipramine Tricyclic psychoactive agents though producing significant reduction in enuresis episodes are mirrored by side-effect profiles potentially rendering functional uselessness to the patient. Tricyclics produces 4.2 times likelihood of aversion of enuretic episode compared to placebo alone. Oxybutynin anticholinergic mechanism targeting detrusor overactivity was shown to improve outcomes when combined with Desmopressin in event of poor response to monotherapy. Desmopressin with Tolterodine efficacy was reported as 54% versus 34% with Desmopressin and Placebo combination.

Nocturnal enuresis, also called bedwetting, is involuntary urination while asleep after the age at which bladder control usually begins. Bedwetting in children and adults can result in emotional stress. Complications can include urinary tract infections. Most bedwetting is a developmental delay—not an emotional problem or physical illness. Only a small percentage (5 to 10%) of bedwetting cases has a specific medical cause. Bedwetting is commonly associated with a family history of the condition. Nocturnal enuresis is considered primary (PNE) when a child has not yet had a prolonged period of being dry. Secondary nocturnal enuresis (SNE) is when a child or adult begins wetting again after having stayed dry. Treatments range from behavioral therapy, such as bedwetting alarms, to medication, such as hormone replacement, and even surgery such as urethral dilatation. Since most bedwetting is simply a developmental delay, most treatment plans aim to protect or improve self-esteem. Treatment guidelines recommend that the physician counsel the parents, warning about psychological consequences caused by pressure, shaming, or punishment for condition children cannot control. Whether bedwetting causes low self-esteem remains a subject of debate, but several studies have found that self-esteem improved

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with management of the condition. Children questioned in one study ranked bedwetting as the third most stressful life event, after "parental war of words", divorce and parental fighting. Adolescents in the same study ranked bedwetting as tied for second with parental fighting. Bedwetters face problems ranging from being teased by siblings, being punished by parents, the embarrassment of still having to wear diapers, and being afraid that friends will find out. Studies show that bedwetting children are more likely to have behavioral problems. For children who have developmental problems, the behavioral problems and the bedwetting are frequently part of/caused by the developmental issues. For bedwetting children without other developmental issues, these behavioral issues can result from self-esteem issues and stress caused by the wetting. Bedwetting does not indicate a greater possibility of being a sociopath, as long as caregivers do not cause trauma by shaming or punishing a bedwetting child. It is suggested that there is an association between a person displaying all three characteristics, then later displaying sociopathic criminal behaviour. It has been observed a triad of childhood cruelty to animals, fire setting and enuresis or frequent bed-wetting. Such maladaptive childhood behaviours often result from poorly developed coping mechanisms. This triad, although not intended to predict criminal behaviour, provides the warning signs of a child under considerable stress. Children under substantial stress, particularly in their home environment, frequently engage in maladaptive behaviors, such as these, in order to alleviate the stress produced by their surroundings. Up to 60% of multiple-murderers, according to some estimates, wet their beds post-adolescence. Enuresis is an "unconscious, involuntary, and nonviolent act and therefore linking it to violent crime is more problematic than doing so with animal cruelty or firesetting". Bedwetting can be connected to emotional or physical trauma. Trauma can trigger a return to bedwetting (secondary enuresis) in both children and adults. In addition, caregivers cause some level of emotional trauma when they punish or shame a bedwetting child. This leads to a difficult distinction: it is not the bedwetting that increases the chance of criminal behavior, but the trauma. For example, parental cruelty can result in "homicidal proneness". Nocturnal urinary continence is dependent on 3 factors: 1) nocturnal urine production, 2) nocturnal bladder function and 3) sleep and arousal mechanisms. Any child will suffer from nocturnal enuresis if more urine is produced than can be contained in the bladder or if the detrusor is hyperactive, provided that he or she is not awakened by the imminent bladder contraction. Primary nocturnal enuresis (PNE) is the most common form of bedwetting. Bedwetting becomes a disorder when it persists after the age at which bladder control usually occurs (4–7 years), and is either resulting in an average of at least two wet nights a week with no long periods of dryness or not able to sleep dry without being taken to the toilet by another person.

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