

ADULT MALE ENURESIS: A STUDY OF 200 CASES

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This study was made in the hope of helping to clarify a common problem about which there is a remarkable divergence of opinion as to etiology, pathology, treatment, and even frequency of occurrence. The most important questions about this condition seem to be, first, "What is the relationship of bed wetting to what organic diseases?" and, second, "What treatment will cure it?" This is a report of 200 enuretic soldiers between the ages of 17 and 25, personally seen and treated during the past year at Fort Leonard Wood, Missouri. Conclusions presented are in some respects controversial but none the less they seem definitely valid for this group of cases.

Enuresis in children has been excellently described by Meredith Campbell¹ who has seen over 1500 cases. He stresses the fact that, although 90 per cent are purely "functional," enuresis may be the presenting symptom of serious organic disease. He is convinced that the etiology in most cases is emotional insecurity, distress, and the desire for attention in a child of parents who may be either inattentive or more often highly emotional, neurotic, insecure people themselves. The organic diseases he has found in so-called enuretics include congenital obstructions, neurological disease, ectopic ureters, urethral diverticula, and the perhaps less well defined entities of weak sphincter, prostatitis, verumontanitis and polyps of the verumontanum. He states that uropathy is found in 60 per cent of cases resistant to medical and psychiatric therapy. H. P. Winsbury-White² found organic disease in 70 per cent, mostly mild posterior urethral inflammation which he treats with sounds and silver nitrate solutions. D. L. Cohen³ found organic disease consisting of shortening of the trigone, depression between the verumontanum and bladder neck, and other minor changes in twenty-four out of 25 enuretic soldiers.

Campbell states that there is no good drug for the treatment of functional enuresis. Benzedrine,⁴ ephedrine,⁵ testosterone,⁶ belladonna and sedatives all have their advocates. He has had little success with alarms and mechanical devices, and recommends psychotherapy. Others have suggested presacral neurectomy,⁷ construction of a urethral sling,⁸ and lumbopubic electric shock. Brief psychotherapy was used by Kriegman and Wright⁹ in 25 soldiers, with cure in sixteen and improvement in four. This consisted of explaining to the patient the functional nature of his complaint, telling him that he could improve, accepting

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¹ Campbell, Meredith: *Clinical Pediatric Urology*. Philadelphia: W. B. Saunders Co., 1951.

² Winsbury-White, H. P.: *Brit. J. Urol.*, **16**: 81-102, 1944.

³ Cohen, D. L.: *J. Urol.*, **57**: 331-337, 1947.

⁴ Strom-Olsen, R.: *Lancet*, **2**: 133-135, 1950.

⁵ Rudolph, G. DeM.: *J. Ment. Sc.*, **94**: 629-640, 1948.

⁶ Kugelmass, I. N.: *N. Y. State J. Med.*, **47**: 1369-1370, 1947.

⁷ Brodny, M. L. and Robins, S. A.: *J.A.M.A.*, **126**: 1000-1006, 1944.

⁸ Bonino, M.: *Urologia*, **15**: 87-95, 1948.

⁹ Kriegman, G. and Wright, H. B.: *Am. J. Psychiat.*, **104**: 254-258, 1947.

him as a person, though not accepting his enuresis. In later interviews there was increasing strictness and scolding on the part of the psychiatrist.

ETIOLOGY AND PATHOGENESIS

We found enuresis a common condition in young adult males. The figure of 2.5 per cent of men of draft age has been quoted³ and seems reasonable. During the time that 100 cases of enuresis were seen at this hospital, 187 hernia repairs were done. The fact that most urologists see almost no cases must be explained on the basis that most of these men have either never seen a doctor or have seen their family doctors when they were children and been discouraged from further attempts to find a cure. Only eight of the 200 cases in this series had ever seen a urologist or had a complete urologic workup. No organic disease was found in the vast majority of our cases, and in none was serious organic disease discovered. All patients had a detailed history, local physical examination and routine and microscopic urinalysis. Coronal adhesions were found once, meatal strictures twice. The latter were opened, but enuresis did not improve. Neurological abnormalities and evidence of hormonal imbalance were not found. Urinalyses showed a normal range of specific gravities, most of them around 1.020, only 20 below 1.015. In these cases the urine was otherwise normal except for 2 patients who had red and white cells on microscopic examination. They had cystoscopic evidence of acute hemorrhagic cystitis. Retrograde pyelograms with urine cultures were normal; and the cystitis in both cases improved without improvement in the enuresis.

Further workup was done on several other cases. Nine plain urograms, 16 excretory urograms, 4 retrograde pyelograms, and 10 cystometrograms were normal. In 60 cases panendoscopy was performed with the No. 24 McCarthy instrument, without anesthesia. Sensation was normal in all. Mild trabeculation was found in three, large verumontanum in four, red and granular verumontanum in three, slightly elevated bladder neck in four. The remainder appeared perfectly normal. No residual urine was present in 28 cases, 10 cc in 10 cases, 30 cc in 3 cases, and in none was it higher. Prostatic smears on 13 patients averaged $5\frac{1}{2}$ white blood cells per high power field. In only 2 cases were there over 8 white blood cells. These patients did not respond to prostatic massage. It would seem significant that patients with severe cystitis, prostatism, et cetera, do not complain of enuresis even though they may be getting up 10 times a night to void.

The psychogenic element was quite apparent. These cases fell into a definite personality pattern, strikingly the same as that reported by Kriegman⁹ and Shlionsky¹⁰ in similar groups. After brief interview, personalities in 95 patients were classified as quiet, shy, and awkward in thirty-two, slow and rather stupid in fifteen, dependent with many neurotic complaints in ten; five were anxious; three, homesick; three, aggressive; five prisoners from the stockade. Seventeen seemed normal, pleasant, and straightforward, while five appeared more than usually intelligent and educated. The characteristic personality type seemed to be the emotionally immature, passive, dependent individual, who had not had "sufficient warm acceptance, firm support, and permissiveness in his relation-

¹⁰ Shlionsky, H.: *War Med.*, 7: 297-303, 1945.

ship to significant adults."⁹ It has been suggested that the enuresis represents both an expression of resentment and of the desire to be considered and protected like a child.

They were of average or low average intelligence, were mostly white (of 112 cases, seventy-seven were white and thirty-five Negroes). Most had had some schooling. Of 70 cases, seventeen had finished 8 grades, forty have gone to high school, eleven completed high school, two gone to and one completed college. Out of 83, there were 51 unskilled laborers, 16 farmers, 9 truck drivers. There were also 1 schoolteacher and one who had owned his own business. Of 92, seventy-six were single, sixteen married. Of 136, one hundred and twenty-eight were privates, four privates first class, three corporals, one a sergeant. No higher ranks were represented.

In 129 cases, brief questioning elicited some sort of serious family trouble. Thirty-five were poor, thirty were orphans, twenty-six had one or both parents chronically ill, sixteen had families who were separated, seven had families who were divorced, and a scattering with anxious or nervous parents, family fights, father a drunkard or in jail. One patient was illegitimate. In only eight was the family life described as all right on even brief questioning. Most patients had 3 or 4 siblings. Family history of enuresis was high, there being 125 enuretic relatives in the group, mostly brothers (56). The question of some inherited abnormality has been raised, but not solved.

The incidence of associated neurotic complaints was high. Eighty-eight out of 100 patients had day frequency and precipitancy of urine, and a few had wet their pants. Sixty-seven out of 103 had back pains, nineteen had leg or abdominal pains, eight had headaches, ten nervousness, five dysuria, one each asthma, urinary retention, urethral discharge, and fainting spells. For none of these was any organic basis found.

Enuresis had been lifelong in 133 out of 149 cases. Two dated onset from an injury to the perineum or back, though no evidence of injury could be found. In 9 cases, enuresis developed while in the Army, one of these following the death of both parents, two after Korean service, one after hernioplasty. One followed scarlet fever in adolescence. Out of 113 patients, wetting occurred nightly or almost nightly in forty-one, at least once a week in fifty-six, and less often in sixteen. Rarely was there any change through the years. One might note that it seems hard to imagine an organic disease cropping up at weekly intervals for 25 years, leaving no physical sign of its presence.

Malingering was rare if not absent. Twenty-five of these men had volunteered for the Army and wanted to stay in. The history in most of the others was so typical that it is hard to believe it was invented. Many had letters from their family doctors certifying to their enuresis prior to entry into service.

A certain indifference to treatment was noted in many cases. Twelve refused cystoscopy, several complained bitterly that the benzedrine given for their enuresis kept them awake. Nineteen had had no treatment prior to entry into service. This may reflect the attitude of family or of family doctor, or the patient's discouragement with previous treatment; but it seemed to be more the *belle indifférence* of the neurotic, suggesting a subconscious desire to keep his symptom because it serves a purpose.

Diabetes and seasonal variation were not found. Thirty-seven patients considered their sleep light or normal as against twenty who believed that their sleep was abnormally deep. Thirty-nine were city dwellers versus 36 from the country.

TREATMENT

Medical and urologic treatment in this group was unsatisfactory. All the commonly recommended treatments were tried. Although good results have been reported, we found none of much value. Thirty-four out of 79 patients had previously been treated by their family doctors, eighteen had used patent medicines, and eight had had apparently complete urologic workup, all without any success.

Banthine 100 mg. 4 times a day by mouth was given for 2 to 4 week periods to 10 patients, all of whom had negative cystoscopy, pyelograms, and cystometric studies. Bed checks were done in the hospital. There was no change in the frequency of wetting. Benzedrine 20 mg. by mouth at bedtime for 1 or 2 weeks was used in 53 cases, on the theory that it would help if enuresis was due to abnormal depth of slumber. Forty-three were unimproved, nine a little improved, one markedly improved. None were cured. Tincture of belladonna, 15 drops 4 times a day by mouth for 1 or 2 weeks was used in 39 cases. Thirty-three were unchanged, 6 improved, none cured. Methyl testosterone linguets, 5 mg. 4 times a day were used for 1 week periods in 3 cases, without improvement. Sedatives, such as phenobarbital, nembutal, and amytal, were used in 5 cases, without benefit. Cysto-urethroscopy with the 24F instrument, which would seem comparable to adequate sounding, resulted in no change in the 60 patients on whom it was done. Cauterization of the posterior urethra with 4 per cent silver nitrate was done in 6 cases, without change in symptoms. Surgical construction of a urethral sling, neurectomy, and lumbopubic electric shock were not tried. It was believed that they might do more harm than good. Psychotherapy was not used per se in our series, though it may well account for the occasional improvement noted.

Disposition in most cases has been discharge from the Army on the recommendation of the psychiatrist because of immature personality with symptomatic habit reaction. A few patients have been retained in service. Prognosis for cure would seem to be bad. Followup studies on these patients after they return to civilian life are planned.

SUMMARY

Two hundred cases of enuresis in soldiers have been reviewed. Though it should definitely be emphasized that enuresis, especially in children, may be the tip-off to serious organic disease, it is believed that the symptom in adults is almost always a psychogenic one. The role of vaguely defined irritative conditions of the posterior urethra in causing enuresis has probably been overestimated. Certainly careful history, physical examination, and urinalysis should be done in every case. Further workup should be determined from that point. If the history is typical and the physical and urine negative, there would seem to be little need to do cystoscopy or further urologic studies. Treatment in this series, including banthine, has been unsatisfactory. Psychotherapy may be the answer.

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