Problems in Family Practice

The Enuretic Child

Paul M. Bindelglas, MD
Phoenix, Arizona

The evaluation and management of enuresis has long been a common and challenging problem in everyday practice. Enuresis is a symptom believed to result from a variety of etiological factors, including genitourinary disease, neurological disturbances, delayed development, allergic reactions, deep sleep, and psychological factors. Although enuresis is frequently a self-limiting condition, every child presenting with this problem deserves a careful work-up and consideration of therapy based on the probable underlying cause. There are five major approaches to therapy of enuresis: psychological, psycho-physiological, medication (particularly imipramine HCl), conditioning therapy, and dietary restrictions. Effective therapy will often involve more than one approach and should be tailored on an individual basis to meet each child's particular needs.

Effective treatment of enuresis has been a problem for the physician from the time of early recorded history.[1] The reported incidence of enuresis varies widely, depending on the age and sex of the children studied. A review by Crosby[2] showed an incidence of approximately 40 percent of children at age three, 22 percent of children at age five, ten percent at age ten, and three percent at age 15. There was still one to two percent enuresis at age 20. For most children, enuresis is a self-limiting condition; there are approximately 12 to 15 percent spontaneous remissions per year. A cure declared after lengthy treatment, therefore, can be unreliable, and this probably explains why so many treatments have been enthusiastically proposed and eventually discarded.

The treatment of enuresis, in general, will be geared to correcting what one perceives as the etiological defect. In modern times, enuresis has been attributed to genitourinary tract pathology, neurologic disturbances, sleep disturbances, allergic disorders, genetic factors, delayed development, habit disturbances, and psychological problems. In recent years there has been a tendency to favor attributing the condition to psychological and emotional etiology, with a resultant resistance to other than psychologic forms of treatment. I believe that enuresis is a symptom, like a cough, that can have a variety of etiologies. I also feel that most specialists who treat enuresis tend to see many more enuretics with symptoms referrable to their specialty, and so frequently conclude that the defects they see are the prime etiological factors. For example, urologists tend to see more enuretic children with marked diurnal symptoms, and psychiatrists tend to see children with severe emotional and family problems.

Dr. Bindelglas is Consulting Psychiatrist, The Jane Wayland Child Center, Phoenix, Arizona. Requests for reprints should be addressed to Dr. Paul M. Bindelglas, 5051 North 34th Street, Phoenix, Ariz 85108.

Etiological Factors Associated with Enuresis

In order to discuss treatment rationally, one should be aware of various possible etiological factors. These generally fall into six major categories: (1) genitourinary disease, (2) neurological disturbances, (3) delayed development, (4) allergic reactions, (5) deep sleep, and (6) psychological factors.

Some urologists have reported a high incidence of urologic abnormalities in enuretic children,[3-5] the symptoms of which include frequent urination; urgency; dysuria; diurnal enuresis; stress incontinence; an interrupted, split, or high velocity stream; difficulty in initiating urination; straining to void; and dribbling.[4] These symptoms are perceived as related to an unrecognized urinary tract infection and/or to subtle obstructive lesions. It has been reported that correcting the genitourinary pathology reduces the frequency and incidence of enuresis but often does not totally eliminate it,[4,5] thus suggesting that other factors may be involved, even in the presence of genitourinary pathology.

An association of enuresis with sleepwalking and epilepsy has been reported.[6,7] In several studies, there was a greater number of abnormal encephalograms in enuretics compared to a matched control group. Most studies of enuretic children have failed to show any increased incidence of

neurologic pathology, but one could assume that epileptics who have seizures during sleep may also wet the bed at that time.

The theory of a developmental lag as an etiological factor has also been advanced. This lag has been reported to include: (a) small bladder capacity,[8] (b) immature neurological development,[9] and (c) psychological immaturity.[10]

Reports persist of a higher incidence of enuresis associated with allergies.[11-14] Some say that enuresis is associated with various offending foods. Although this has not been confirmed by controlled studies,[15] it has been mentioned often enough to be kept in mind as a possible contributing factor, particularly in children with marked allergic backgrounds.

One frequently hears that enuretic children are extremely deep sleepers.[16,17] Recent reports on all-night EEG monitoring of enuretic children have demonstrated that some children will indeed urinate while remaining deeply asleep. Another group, however, showed signs of arousal prior to wetting, and a still smaller group was actually awake at the time of urination.[18] The conclusion was that the causative factors in those who did not arouse at all were not psychologic, but that psychological factors were probably involved in the other groups. Others, however, disagree and believe that enuretic children with genitourinary pathology who have urgency during the day would not have time to get up and void even if the EEG showed them technically awake. (S. Arnold, MD, personal communication, January 6, 1975)

By far the most commonly accepted causative factors are psychological or emotional problems.[10] Various theories have been presented. Enuresis has been associated with passive-aggressive social behavior and assertion of one's individuality; it has also been seen as an expression of hostility towards parents, regression to a more infantile state, or as a symptom of severe family pathology. Psychoanalysts have reported enuresis as a form of urethral eroticism and have associated it with the tendency to repress infantile sexuality in our culture. Arnold, a urologist, raises the question of whether so-called urethral eroticism could not be caused by genitourinary pathology in which there is inflammation and irritation in the urethra resulting in increased sensitivity.

Diagnostic Work-up

The purpose of the diagnostic work-up is to identify any physical and/or psychological problems which may be related to enuresis in order to plan a rational treatment program.

A thorough history should include the age and sex of the child and how many nights per week he wets. Is it more than once nightly? What time of night does he wet? Is he wet when the parents go to bed? Does he awaken when wet? Is he easy to awaken? Has he ever been dry? Are there any other urinary symptoms – diurnal enuresis, "accidents," frequency, urgency, dribbling, difficulty in starting or stopping the urinary stream, burning, discomfort in the urethra, slow or high velocity streams? How many times a day does the child urinate? What were the previous approaches to treatment? Results? What brings the family to the doctor at this time? The family history should include any history of enuresis in the parents, their siblings or in the patient's siblings. How many children are there in the family, and what are their ages? Is there a history of allergies, such as frequent colds, bronchitis, hay fever, asthma, eczema, or food sensitivities? Is there any history of marked psychological, emotional, neurological, or learning problems in the family? Any congenital defects? Also to be included in more detail are questions about the parents' mental health and their relationship with each other and with the children. What are the particular emotional strains in the family? Are the parents open about discussing them, or are they close-mouthed? What is their attitude towards the enuretic child? Does each parent have a markedly different attitude? Does this cause conflict?

Also, aside from direct pathology, some assessment should be made of the personality of the parents in relation to the children. Do they promote growth, and assertiveness and mastery over the environment? Do they attempt to overprotect and overcontrol the child? Are they excessively permissive with a marked laissez-faire attitude? Does their tone in discussing the child suggest that they accept him as an individual, or is it derogatory or infantilizing?

The past history should include whether there were any problems in pregnancy, whether the child was planned for, any problems in birth or delivery, any anoxia, and any postnatal problems. Any history of high fever, convulsions, staring episodes, frequent colds, bronchitis, hay fever, asthma, fatigue, headache, stomachaches, or eczema should be noted. Is there a history of colic, hyperactivity, or learning or behavior problems in school or at home? Was growth and development normal? What were the ages of sitting up, walking, and talking?

From the history from the mother or father (preferably both) one obtains, in addition to the factual information, a general psychological assessment of the parents, their relationship to each other, the degree of tension in the home, their attitude towards the enuresis, their attitude towards the child, and whether they identify with the child or tend to identify him or her with the spouse.

In the interview with the child, in addition to the factual information, one is interested in learning how the child relates – whether he is fearful and tense or fairly relaxed and open. A repeat history should be asked of the child in order to ascertain his awareness of and reaction to his past, as well as to assess his relative maturity. It is important to assess how he is functioning in areas unrelated to the enuresis and his evaluation of this functioning. How is he functioning with peers, teachers, parents, school subjects, sports? Is he able to express emotions such as anger and fear, or does he use denial? Is he an emotionally constricted child? Does he have nightmares and sleep difficulties? Does he appear tense and depressed? Is he outgoing or withdrawn? Does he seem to have a fair degree of self-confidence or a poor opinion of himself? Is he able to think for himself and answer for himself, or is he tied to his parents?

What is the child's attitude towards the enuresis? Does he definitely dislike it or is his attitude equivocal? What are his reasons for disliking it? Does he handle his own wet sheets, or do his parents? A brief mental status should be done and, for the most part, is accomplished while one is taking a

history and doing the physical. Is the child cooperative or passively resistive? Also, the child should be questioned regarding any unusual ideas, persistent thoughts, or particular anxieties or fears.

A complete physical examination should be performed with particular checking for gait, coordination, motor and speech development, hyperactivity, nasal and respiratory symptoms, eczema, and subtle signs of allergy such as fatigue, pallor, dark circles under the eyes, etc. A complete neurological examination should be done. Also, the genitalia should be examined. Is the bladder palpable? Does the urine have an odor?

A urinalysis should be done; most writers recommend a routine urine culture as well. There is a difference of opinion as to whether a complete urological work-up with IVP, cystourethrograms, and cystometrograms should be performed on every patient. Certainly, if the history and/or physical examination and urine studies show possible evidence of pathology, further studies should be carried out. However, if the urological work-up is negative up to this point, it may be unwise to traumatize the patient with further studies at this time.

Very frequently no definitive organic pathology will be found. It is my opinion that, in addition, frequently there is insufficient evidence of significant emotional pathology to account for the enuresis.

Approaches to Treatment

Modern treatment has generally been related to correcting what one sees as the cause of the condition. Thus, if urinary pathology is detected, then correcting possible obstructions or infection, offering exercises for greater control over starting and stopping the urinary stream, and advising a high fluid intake during the day to stretch the bladder are some of the steps that can be taken. If a convulsive disorder exists, appropriate treatment should be instituted. In an individual with a highly allergic background, the possibility of offending foods contributing to the condition could be considered. One study reported an increase in bladder capacity and even a "cure" of enuresis in seven of 48 children who were maintained on a diet that was free from milk, dairy products, eggs, citrus fruits, juices, tomatoes and tomato products, cocoa, chocolate, carbonated beverages containing coloring agents, and drinks like "Kool-Aid."[13] The author even reported effectiveness in some children who had only a partial response to imipramine HCl. He felt that food factors can cause an increase in bladder tone with a resultant diminution in bladder capacity. While others dispute these findings as inconclusive, nevertheless, this is an approach that may be considered, particularly in a child with a history of considerable allergic problems.

Those who see the problem as mainly of psychological origin treat this condition as they treat other psychological problems in their practice. This will include giving reassurance and/or tranquilizers, or recommending psychotherapy. Certainly, where deep-seated emotional or family problems do exist, an appropriate form of psychotherapy is indicated.

Frequently, however, the physician is faced with a situation in which there does not appear to be any obvious reason for enuresis. From the distant past to modern times, a great number of treatments have been proposed for this condition. Since the spontaneous remission rate each year averages 12 to 15 percent, and may at times be even greater depending on the enthusiasm of the physician, it is not difficult to see why each form of treatment has had enthusiasts in whose hands it seemed to work, while others would deny its effectiveness. Thus, one must assume that the stones of a hedgehog which Thomas Phaer, the father of pediatrics, used to treat this condition,[1] did produce some measure of success, or else such a brilliant man would not have continued to use them. In modern times, amphetamines and methylphenidate have been used under the theory that by lightening sleep, the enuresis may be controlled. However, they not only fail to control enuresis, but in my experience with hyperkinetic children who are also enuretic, these drugs actually may aggravate the enuresis. Anticholinergic drugs like atropine, belladonna, and propantheline bromide have also been used with little success except when the problem is neurogenic. Some have advised doing nothing but *reassuring* the parents and the child that the condition will be outgrown. However, the symptoms per se can contribute to psychological problems for the child and interfere with family relationships. Hypnotism has also been tried but without notable success. Others have advised psychotherapy for all enuretic patients, but the results have been equivocal when no clear-cut evidence of psychopathology exists. Marshall utilizes a psychophysiological approach which includes various activities and physiological exercises that require the child's active participation as part of a comprehensive treatment program.[19] The child keeps a chart of dry and wet nights, and performs urinary and bladder exercises to increase bladder capacity, and to give greater awareness of the sensation of bladder fullness and greater control over starting and stopping the urinary stream. Using an alarm clock, the child awakens himself at night to urinate, and he discusses with the physician various emotional reactions that may contribute to his enuretic episodes. Marshall claims a lower relapse rate than with either imipramine HCl or with conditioning therapy. However, in cases of enuresis where no definite organic or emotional pathology can be demonstrated, imipramine HCl and conditioning therapy have been two of the most successful forms of treatment.

General Measures

With any treatment of enuresis, a spirit of cooperation among parents, child, and physician should be established. As mentioned above, Marshall incorporates the spirit of cooperation by the child into a program in which the child's active participation is the central focus of his treatment. Certainly the child's active desire, cooperation, and participation in the treatment process should be encouraged. Physicians who exude enthusiasm and optimism usually have better results. An attempt should be made to neutralize any tensions between the parents and the child that may surround this symptom. Reassurance, encouragement, sympathy, and support should be given to the child in appropriate amounts. The parents can be given sympathy and, where appropriate, simple reassurance that the symptom is not necessarily indicative of their failing or of severe psychopathology in them or their child. It does not necessarily mean that their child is stubborn or expressing hos-

tility towards them. All attempts to awaken the child to urinate in the middle of the night when he is half asleep should stop. I would not recommend absolute restriction of fluids in the evening but suggest rather that a sensible approach be used. Some fluid could still be allowed in the late afternoon at dinner, and even a little at bedtime, but copious amounts in the evening should be avoided.

Conditioning Therapy

Modern conditioning therapy for the treatment of enuresis dates back to 1938, when Mowrer and Mowrer[10] published their monograph on the use of a conditioning apparatus for the treatment of enuresis. Basically, this consists of pads containing electrodes, which are placed in the genital region, and some form of alarm system. If the child starts to urinate, an electric circuit is completed and buzzers, bells, and lights go off in an attempt to awaken the subject, get him to stop wetting the bed, and remind him to go to the toilet. Other variations of this basic design exist. Some give different degrees of noise if the child does not awaken immediately, others emit a slight electric shock to awaken the child, and still others make use of both noise and an electric shock.

Conditioning therapy can be extremely effective,[10,20-22] and there are many instances in which it has worked when imipramine HCl has not. The disadvantages of this approach are: (1) the child has to sleep nude from the waist down with the pads attached, (2) the noise and disturbance frequently will disturb not only the child's sleep but the sleep of the entire family, (3) if the child is a deep sleeper, he will often continue to sleep while the rest of the family will be awakened, and (4) there is the potential hazard of burns in the area where the electrodes have been positioned in close proximity to the skin. These burns have occurred when the child wet but did not awaken to turn off the machine; the current continues to flow and so occasionally can produce burns.[23] But such instances are rare, and this form of treatment has been reported to be quite safe and effective. Young[22] reports success rates from 63 to 100 percent.

Although my opinion is a subjective one, I feel that the use of the medication, without resorting to such a cumbersome procedure, would usually be preferred by most physicians and their patients as the initial treatment of choice.

Imipramine HCl

The use of imipramine hydrochloride in the treatment of enuresis dates back to 1960 when MacLean,[24] in a brief uncontrolled study, reported its effectiveness in relieving nocturnal enuresis in children. Since then, many controlled studies have appeared in the literature,[13,25,26] most of which confirm the effectiveness of imipramine HCl over a placebo. Where it has not been effective, it is my opinion that very often the dose was too small, the medication was not given long enough, or pathology (either organic or functional) of a fairly marked nature was present.

Dosage

Most clinicians have started off with a nightly dose of 25 mg for younger children and 50 mg for older children.[25,27,28] However, some believe that the initial dose of imipramine hydrochloride should not be less than 50 mg regardless of age.[29] All agree that if, after a period of time, the smaller dose is not effective, it should be increased. The highest dose to which various clinicians have gone before deciding that imipramine HCl was ineffective varies from 75 to 125 mg nightly. I believe that with any medication, the smallest effective dose should be used. Also, it is possible that there may be an optimal effective dose and that larger doses may even be less effective.[28] I tend to start children under 11 years with a nightly dose of 25 mg. If there is no improvement at all in two weeks, the dose should be increased to 50 mg nightly. If after another two weeks there is absolutely no improvement and no appreciable side effects emerge, the dose could be increased by another 25 mg. If no improvement occurs after one month on 75 mg daily, further use of imipramine HCl is not likely to be beneficial. In children over 11, I would start with 50 mg nightly and, if necessary, increase the dose by increments of 25 mg until 100 mg nightly has been reached. After there have been no enuretic episodes at all for six weeks, the medication could be gradually withdrawn over the next three to eight weeks. If the child should relapse, imipramine HCl should be restarted at the lowest dosage needed to control the symptoms. After a remission occurs, the drug should again be continued until the patient is dry every night for six more weeks before beginning to withdraw it. In addition to dosage, another factor to consider is the timing of the medication in relation to the time of the child's bed-wetting. For children who wet early at night, if the medication is given at bedtime, it simply does not have enough time to work. Accordingly, children who wet early in the night should receive medication right after supper. Those who tend to wet more in the middle of the night, should receive it about one hour before bedtime, and those who wet towards morning should receive it at bedtime. If the time of bed-wetting is not known, the drug should be given one hour before bedtime.

Long-term Effects

The fear has been expressed that the long-term effects of the use of medication in enuresis would be (1) gradual psychologic decompensation, (2) deleterious effects on health, growth, weight and development, and (3) a predisposition to abuse drugs when the child grew older. In a still unreported, preliminary ten-year follow-up of our original cases, we find no such evidence whatsoever. Most of them seem to be healthy, well-functioning, well-motivated teenagers and young adults who have much less interest in chemicals of any kind than one would expect from a random sample of their age group.

Precautions

Studies have shown that imipramine HCl is effective in the treatment of enuresis even when organic pathology exists. The drug, therefore, cannot be used to screen for the presence or absence of genitourinary disease. Rather, the latter must be evaluated through specific signs and symptoms and appropriate tests before a trial of imipramine HCl is instituted. The drug has not been approved for children under six years of age.

Adverse Reactions

The medical complications from the treatment of enuresis with imipra-

mine HCl in the doses that have just been described are relatively few and minor. These include occasional slight anorexia, irritability, insomnia, or drowsiness. An occasional skin rash has been reported.[23,25,29] A case of thyrotoxicosis in a ten-year-old girl who had been given 25 mg daily for enuresis has been reported.[30] This girl had previously been maintained for years on desiccated thyroid. Severe postural hypotension in a nine-year-old receiving imipramine HCl 25 mg bid has been reported.[31] There is a report that imipramine HCl given to young psychotic children produced a worsening of psychotic symptomatology.[32] By far, the greatest danger in the use of imipramine HCl is its cardiotoxic effects.[33-35] A sudden death was reported on a prescribed daily dose of 14.7 mg per kilogram. This was a dose of 300 mg given daily to a six-year-old child. For days prior to her death the child had toxic symptoms severe enough for her to be hospitalized, yet the medication continued to be given. The smallest fatal dose of acute ingestion of imipramine HCl was 32 mg per kilogram. Most imipramine HCl deaths in children have been the result of their ingesting medication that was prescribed for their mothers for depression. However, deaths from overdose have been reported in cases where the medication was prescribed for the enuretic child. The question that has been raised is, "Should a medication that could be fatal be prescribed for a non-fatal condition?" It is my opinion that with such thinking even aspirin would not be brought into the home. When prescribed correctly for enuresis, imipramine HCl has been proven to be a very safe drug with rare minor side effects. However, I do feel that caution is necessary when prescribing for children whose mothers appear to be disorganized, psychotic, or depressed. In such circumstances, the medication could still be prescribed but perhaps only a one-week supply should be permitted at a time.

Imipramine Overdose

Although there is a good margin of safety with imipramine HCl, nevertheless, toxic symptoms can develop in cases of marked overdose. Severe toxic symptoms usually appear if the ingested dose exceeds 20 mg per kilogram. These symptoms could include coma, convulsion, respiratory depression, hypotension, and cardiac arrhythmias. The EKG changes reported include complete or partial AV block, multifocal extrasystoles, supraventricular tachycardia, atrial flutter, and ventricular tachycardia. There is frequently a widened QRS complex, and depression of the ST segment and abnormal T waves. Ventricular fibrillation and cardiac arrest may occur.[35] Treatment with neostigmine or physostigmine has been reported effective in treating toxicity.[36-38] However, physostigmine, which crosses the blood brain barrier and so is effective against the peripheral as well as the central effects of imipramine HCl, has been advocated. The dose used has ranged from 0.5 mg in small children to 2 mg for adults. The dose is given slowly intravenously. If this has no effect, it can be repeated in 20 to 30 minutes. Atropine, in half the dose of physostigmine, should be ready in the event that an excessive cholinergic effect occurs. The results in unconscious or severely toxic patients can be quite dramatic. However, since physostigmine is a short acting drug, the medication may have to be repeated several times. A recent report stresses the potential toxic effect of physostigmine and cautions against its routine use.[39] However, from the reports available, in life-threatening situations due to severe imipramine poisoning, it appears to be the most effective agent available.

Results

Considerable controversy exists regarding the value of imipramine HCl in the treatment of enuresis. The overwhelming number of reports seem to confirm its effectiveness in lowering the frequency of enuresis in from 60 to 80 percent of cases.[3,25,27] Disagreement exists as to whether it is effective in producing "cure" when the drug is withdrawn. It is my opinion that most trials of imipramine HCl in the treatment of enuresis have been much too short. Most are not longer than two months. We have found it necessary to keep some children on imipramine HCl for almost one year before complete remission is achieved. Of course, success is not always possible. We found that the individual response to medication varies considerably. Some children have no response at all, even after six months of treatment, another small group have complete remission from almost the first night of treatment with no relapse. Another group have fairly rapid remission followed by relapse with no subsequent response to the medication, even if the dose is increased, while another group (perhaps the largest) shows a slow, gradual improvement with an early, gradual decline in number of times they wet each night, followed by a slow, gradual decrease in the frequency of "wet nights" over a period of many months. If treatment is terminated before complete remission occurs, the child usually relapses. Some critics say that if imipramine HCl has been used for up to a year in order to achieve results, then cure must be attributed to spontaneous remission rather than the therapeutic effect of the medication. It is my feeling that the cure rate with the use of imipramine HCl is much higher than the 12 to 15 percent per year that would normally be attributed to spontaneous remission. However, even if the medication only produced symptomatic relief until spontaneous remission occurred, it would be performing an important service for the child and his family.

Psychological Complications from "Symptomatic Treatment"

The strong advocates of a primary emotional etiology for enuresis feel that it is a serious disorder affecting a child's total personality, and is an expression of a markedly disturbed parent-child relationship. They therefore argue that removing the symptom ignores the cause and leaves the pathology intact. Furthermore, they feel that the symptom is serving a psychological purpose for the child, and that removing the symptom alone may very well result in the development of more severe psychopathology. I do not know of any hard clinical evidence to confirm this hypothesis. The experience of most clinicians who have treated enuresis has been that removing the symptom usually exerts a healthy effect on the child, improving his self-esteem and his relationships with the other members of his family. This has also been my experience. I do not feel that the possible presence of severe psychopathology in the child or in his family is a contraindication for the use of imipramine HCl or conditioning therapy. Just because an

enuretic child also has severe psychopathology, one should not automatically conclude that the psychopathology is the cause of the enuresis. However, it could very well be that the enuresis is used and incorporated by the child and his family into their neurotic interaction. Thus, we have found that there are a number of cases in which the psychodynamics operating in the child or in his family seem to demand a continuation of the symptom. In some instances, we have seen the parents becoming more critical of the child as he began to gain control over his enuresis. Should he then relapse and wet again, this criticism seemed to subside. Certain children tended to become anxious and irritable when they began to gain control. When both the child and his family seemed to be somewhat more intact, they were able to assimilate the changes. Then the improvement persisted and the anxiety gradually subsided. In other cases, one of several forms of resistance occurred: (1) the child would continue to bed-wet despite medication; (2) the child would respond but then start to wet again while still taking the drug; or (3) the child was abruptly removed from treatment without discussion. These children did not necessarily have any significant side effects from imipramine HCl to account for its abrupt cessation, and some of them were in various stages of gaining control when they were removed. Thus, it is my feeling that one need not worry about removing the symptom of enuresis in families that are not able to tolerate it. They will either drop out of treatment or the child will continue to wet in spite of treatment.

Discussion

Treatment of enuresis should be geared towards the attitudes of the enuretic child and his family and towards where one believes the problem to lie. Thus, doing nothing is not an approach I would normally recommend. However, if one gets an incidental history of enuresis in a child, and parents and child are both nonchalant about it and even seem resistant to treatment, the best approach may be to leave the enuresis alone. With a child who urinates frequently, seems to have a small bladder, and appears to be overcontrolled by his mother, a program of active participation on the child's part aimed at achieving greater mastery and control of his sphincters, greater awareness of bodily sensations, and increased bladder size may be indicated.

If the family does not live in cramped quarters and there is some bias against medication, certainly the conditioning approach may be used. It may be this writer's bias, but I feel that in most uncomplicated cases of enuresis, imipramine HCl should be part of the initial treatment of choice, as it is safe and fairly effective. However, one need not, and frequently should not, limit oneself to one treatment approach. Thus, there is no reason why a program of active participation on the child's part cannot be combined with either medication or conditioning therapy. The child can chart his own dry nights and, where indicated, can also be involved in exercises to increase awareness of bladder fullness and to increase mastery over starting and stopping the urinary stream. The responsibility for remembering to take his medication or preparing his conditioning device can be given to him. And when he reaches the point when he wets only occasionally, certainly one can discuss with him the possible reasons for its occurrence at those times.

It should be remembered that because enuresis is a complex condition one should neither be dogmatic about its etiology nor rigid in treatment approaches, but rather should tailor the treatment as an individual prescription to the particular child's needs.

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