CHAPTER 8

The Urge Syndrome

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This is a fairly common syndrome. In my paediatric practice in Eindhoven about one new case is diagnosed per month. However, in the textbooks of paediatrics the urge syndrome is virtually unmentioned. Vincent (1966) called attention to some of its important signs.

Definition

The urgency syndrome is characterised by unpredictable attacks of a sudden urge to micturate, the patient immediately externally compressing the urethra in order to prevent outflow of urine. Analagous syndromes in adults are called 'urethral syndrome' or 'irritable bladder syndrome'.

Age and Sex

Girls are afflicted more often than boys, in a ratio of ten or twenty to one. In some cases, the mother of the girl has or has had similar symptoms; the rôle of heredity, however, is uncertain. The age of onset is often from three to five years; sometimes the attacks of urgency seem to be present from birth, the external compression of the urethra developing later. In most patients, however, there is a distinct period of normal micturition before the onset of the symptoms. Before the age of three years, the presence of the full syndrome is an exception. After the age of ten to twelve years, the syndrome usually, though not always, fades away. Symptoms may return in adolescence or adulthood.

Symptoms

Most attacks are seen in the afternoon, in children returning from school or playing outdoors, but indoor attacks are also common. Attacks in bed, while resting or sleeping, are rare, but can be distinguished by the patient herself from bouts of nocturnal enuresis.

Generally, the urgency is unpredictable, and comes suddenly. The girl immediately tries to prevent flow of urine by firm *compression* of the urethra, partly by contraction of the muscles of the pelvic floor, and partly by the exertion of external pressure on the perineal region. Exactly how the urethra is compressed is determined by the girl's personal experience and by her circumstances at the time of onset of the feeling of urgency, *i.e.* whether she is playing, cycling, or sitting, in a classroom, at home, or in the street, When the child is sitting, forced adduction of the thighs, usually in combination with strenuous crossing of the knees, often helps. At the same time, some children have also to fidget and continually move the free foot. In the classroom, a shift to the hard edge of the bench sometimes causes sufficient pressure on the pelvic

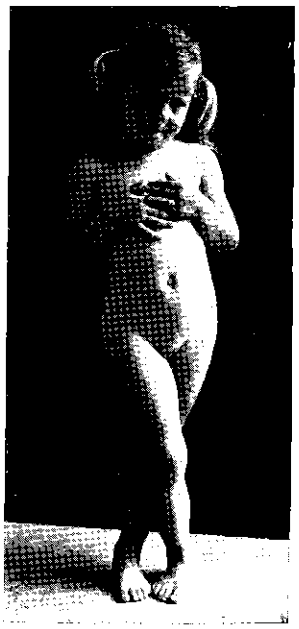

Fig. 1.

Fig. 2.

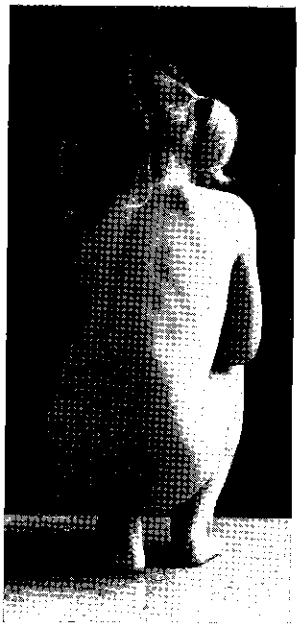

Fig. 3.

floor. Other girls retract one or both legs between their buttocks and the chair. While cycling, the child can seek firm pressure on the point of the saddle. In the upright posture, the child may apply manual pressure and forcedly adduct the lower limbs while placing them in a scissor position (Fig. 1).

The most commonly used method is sitting with the left or right heel pressing firmly upwards into the perineal region. Parents call this squatting, but it is not. In squatting, the position is symmetrical, and neither heel is pressed against the perineum (Figs. 2 and 3). A girl aged twelve with this syndrome told me that she managed the 'heel-sit' position while shopping in a busy main street, by pretending she was tying her shoelaces. The heel-sit position is usually held for from fifteen seconds to several minutes, till the feeling of urgency has disappeared. If the girl's companions have learned to push her over when she adopts this position, she may fail to control the incontinence and immediately wet herself.

The method used to compress the urethra is in many cases influenced by the child's age. The heel-sit technique is particularly common in older girls; on the other hand, manual compression of the perineum, though socially acceptable in a toddler, is taboo for a schoolgirl.

Sometimes the compression fails, being too late or too weak to control the incontinence. Most children with the urge syndrome have some degree of *urge incontinence*. Because the micturition is abnormal, this is incontinence and not enuresis. It is possible for a child to have both urge incontinence and diurnal or nocturnal enuresis. Indeed, such combinations occur fairly frequently.

The finding of some abnormality in connection with the act of micturition was suggested as a criterion for distinguishing 'incontinentia urinae' (incontinence) from enuresis by Poulton and Hinden (1953), and was later used by Diesing (1964) and Soulé and Soulé (1967). According to this method of classification, incontinence is the unavoidable passage of urine not caused by a normal micturition. In enuretics, the act of micturition is normal, but is not yet under conscious control.

Psycho-social Implications

The psycho-social implications of the syndrome are manifold. The attitude of most mothers towards their child is reproachful: 'she smells of urine', 'she holds the urine too long', 'she is always postponing going to the toilet', 'she does not take time for regular micturition'. Apparently, most mothers think that urge incontinence is 'over-flow incontinence', but it is not, for the bladder is not full. Some mothers send their children hourly to the toilet, without a chance of achieving anything. Such maternal reactions are generally absent if the mother has had the urge syndrome herself, for she then generally understands her child's problems. The reactions of the child to the reproachful words of her parents, and her feelings of being shamed by the wetting can evoke behaviour disorders, such as contrariness, pigheadedness, disturbances in the mother-child relationship, aggressive behaviour, or depression and withdrawal symptoms.

Infection

The rôle of infection of the urinary tract in cases of the urge syndrome is not clear. Often the syndrome does occur in association with significant bacteriuria. In some children an overt urinary tract infection may be present when the symptoms of the urgency syndrome first manifest themselves. In others the urine may be sterile for quite a long time after the onset of the symptoms, but eventually become infected.

In cases of uncomplicated urethritis, significant bacteriuria is usually absent. Brooks and Maudar (1972) postulated that many adults with the urethral syndrome may also have urethritis, and the same is possibly true of many children who develop the urgency syndrome. Abnormal micturition, however, may be the primary disorder, leading to recurrent retrograde bacterial infection of the urinary tract (Hinman 1966).

The site of the infection is usually in the bladder-urethral region, but pyelonephritis is known to occur. Bacteriological and cytological examination of the urine is essential. The causal bacteria are nearly always *Escherichia coli.*

A frequent complaint in patients with this syndrome is recurrent abdominal pain, which is vaguely localised, generally in the central, umbilical region. Sometimes the pain is related to a urinary tract infection, sometimes to constipation, but often the origin remains obscure. The pain has no direct relation to the moments of urgency.

Diagnosis

In summary, the symptoms vary, but are usually typical. Once we know the signs and symptoms, it is easy to recognise the syndrome. It is unlikely that the very simple symptomatology of the urge syndrome has escaped the ears and eyes of the medical profession in the past, so it may be that the syndrome is becoming more common.

Treatment

Treatment of the syndrome is difficult, and results are often disappointing. As in all disorders of the distal urinary tract, we have first to be sure that defaecation is normal. Concomitant constipation should be corrected first. When there is a proven urinary infection, antibacterial treatment is needed, with continuing follow-up as recurrences are common. During antibacterial treatment, the signs and symptoms of the urge syndrome may continue unchanged, or they may subside, but they rarely disappear. The opinion of Shuttleworth (1970), that treatment of the infection rapidly controls urge incontinence, holds only for a minority of patients.

Symptomatic treatment of the irritable bladder is often helpful. We use a parasympathicolyticum, with variable results. In cases where the urge syndrome is associated with nocturnal enuresis, the latter should be treated in the usual way.

Full attention should be paid to the psychological aspects, by explaining the syndrome to the parents, discussing with them its social implications, and discouraging the use of punishment and reproaches.

The measures listed above may ease the child's symptoms and reduce his problems, but often comprehensive management is necessary over a number of years.

Vincent (1966) has recommended the use of a pressing pad, and Caldwell (1963) has used permanent electrical devices to stimulate the levator ani in cases of urinary incontinence. However, it is questionable whether such forms of treatment have a significant effect in children with the urge syndrome.

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