SECTION III

Giggle Micturition
The Urge Syndrome

CHAPTER 7

Giggle Micturition

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Even among a group of specialists interested in and concerned with enuresis, it is appropriate to define the term giggle micturition, sometimes called giggle incontinence. It means a sudden, involuntary, uncontrollable and complete emptying of the bladder on giggling or hearty laughter, in a person who is otherwise fully continent. Once the bladder emptying begins, the patient cannot control it, even if giggling ceases.

Judged by the few reported cases in the literature, giggle micturition is a rare phenomenon, and it features in very few text books, that on the Paediatric Urology by Innes Williams (1968) being an exception. It seems likely to be more common than is realised, cases being missed through incomplete observation and reporting by the parents or child, and also through a lack of awareness on the part of the doctor and his failure to ask appropriate questions. Some children grow out of it (Mac Keith 1964), as they do other forms of enuresis, and this may be another reason why every case is not recognised. Others do not outgrow the symptom (Mac Keith 1964 and CASES 1 and 3 below), which causes much distress, social isolation and even despair in those children and adults who suffer from it. By the time they mature, the patients no longer seek a doctor's advice and 'suffer in silence', believing the condition is incurable, as indeed it seems to be at the present time.

CASE 1

J.C., was born in October 1944. In October 1957, when she was twelve years old, she was referred to outpatients by her doctor for 'difficulty in controlling her bladder'. She was seen by a paediatric registrar who shortly afterwards became a psychiatrist, and we can assume that a full history was taken. He wrote on the notes: 'Occasionally wet during the day since infancy, always associated with laughing but not with coughing; a nervous girl, inclined to be weepy'. The registrar wrote to the doctor saying this was apparently a new syndrome and prescribing amphetamine in the mornings. J.C. became dry on this during the next six weeks, and was then discharged from the clinic as all felt she was cured.

In March 1959, when she was fourteen years old, her doctor referred her to the author for review, as the symptom had recurred. On this occasion, both mother and child firmly said that the symptom began at six or seven years of age, not in infancy. Whenever J.C. giggled or laughed heartily, the bladder emptied completely, and she was unable to control the stream. At no other time was she incontinent. She had become acutely embarrassed by the symptom, which was now occurring daily or several times a week, and she had begun to avoid social contacts and to sit at home reading or watching the television when she was not at school.

There is no family history of enuresis or epilepsy or of any other periodic disorder, but J.C.'s father had chronic asthma and a 'severe anxiety state' and only worked for short periods throughout his married life. The exact nature of his disorder remains unknown, as he was unwilling to attend hospital. His wife worked as a cleaner for much of the time when her children were young, and there were undoubted family stresses.

J.C. was admitted for a few days observation, pyelography and cystoscopy, to exclude renal tract pathology and to confirm the symptom. A mild neurodermatitis developed at this time, but resolved in a week or two. The involuntary micturition with complete bladder emptying was observed in the ward during hearty laughter, but otherwise she had normal sphincter control. Colleagues, text books and journals were consulted with negative results. J.C. and her parents were reassured as to the structural normality of her renal tract, and she was advised to empty her bladder at frequent intervals to avoid large puddles from the symptom, and to wear a sanitary towel on special social occasions when incontinence would be particularly embarrassing.

The following month, Mac Keith (1959) described two cases at a paediatric meeting, but after an interesting discussion no clues as to its origin—other than its being genetic in some cases—or management were forthcoming, although several other doctors recognised the syndrome.

J.C. is now aged twenty seven years and has been seen periodically for assessment. The problem continues, although it waxes and wanes according to her emotional state. She trained as a teacher, and unfortunately had an illegitimate baby at the end of her training. At the same time, her father died suddenly, causing J.C. additional guilt and distress. After caring for her son in a hostel for six weeks, she placed the baby for adoption. Her three siblings were married and away from home, so she went to live with her mother and continued teaching. At twenty five years she married, having told her husband of the former pregnancy. She continues teaching and is reluctant to have another child yet, although her husband is anxious to start a family now.

J.C. still wets after laughing heartily, about two or three times a week, but can sometimes remain dry for three weeks at a time. Various drugs, including tranquillisers for depressive episodes, have made no difference. She still avoids social contacts because of her symptom, but her husband, who is sympathetic, sometimes coaxes her to visit friends. Occasionally, the incontinence occurs on these occasions or at school. Friends are sympathetic, and as she teaches in the infants school the episodes have passed unnoticed by the children. She is now seeking psychiatric help for depression, which seems to be more concerned with sorrow at parting with her child than her involuntary micturition. The Millard (1966) or Vincent (1964) apparatus for controlling her symptom may be tried in the future, but so far she has refused to use any mechanical device.

In summary, J.C. is an intelligent, attractive, pleasant young school teacher, with giggle micturition from the early school years, not clearing up during adolescence. She also has emotional lability and a family history of 'chronic anxiety' but none of periodic disorders.

CASE 2

L.S., a girl born in December 1955, was first seen in outpatients in November 1968, at the age of twelve years, for asthmatic attacks. These had begun in infancy, and were at that time each lasting two weeks and occurring about eight times a year, although she had never needed admission to hospital. Investigations were negative, apart from revealing sensitivity to house dust, feathers and dog fur. The asthma has steadily improved with treatment; the symptoms are now negligible, and never keep her off normal school or other activities. Her mild eczema is also well controlled. In addition, there was a history of petit mal from the age of seven years. This had been confirmed at another hospital by EEG examination, and had resolved completely in nine months after treatment with ethosuximide ('Zarontin'). Micturition was reported as normal at that time.

The family history revealed that L.S.'s mother also suffers from minor epilepsy, as does her sister, L.S.'s aunt. Mrs. S. is a pleasant Irish woman and a competent housewife, but tends to have migraine and nervous rashes at times. Her father had migraine too. Her husband, a plumber, also has nervous rashes, and, in addition, his brother and their father both died of cerebral tumours (haemangioblastomata). Mr. S. has a niece with asthma and several other relatives with tuberculosis.

At thirteen and a half years, L.S. came for review of her asthma, and then mentioned that for the past two years she had suffered from diurnal urinary incontinence which had increased in frequency over the past few months up to several times a day. It only occurred during hearty laughter, when the bladder emptied completely and she was unable to inhibit the stream, although at other times she had full sphincter control. It had occurred once at school, when the staff and other pupils had been helpful. Enquiry from the headmistress at this time revealed average academic progress and excellent behaviour at school, where she was said to be a popular friendly girl but rather nervous and excitable.

Explanation was given and advice to avoid having a full bladder whenever possible, but no drugs were used.

She is now aged fifteen years, and the symptom continues, although not so frequently. She thinks there are times now when she can avoid micturition during laughter by crossing her legs and contracting her perineum. She is an 'average teenager', and works as a shop assistant.

In summary, she is a girl of fifteen years, whose giggle micturition has lasted four years so far. She has had petit mal and is emotionally labile. There is a personal and family history of epilepsy, and also of nervous rashes and migraine. There is also a family history of giggle micturition in her mother (CASE 3 below)

CASE 3

Mrs. S., the mother of L.S. (CASE 2 above), has suffered from involuntary complete emptying of her bladder on giggling or hearty laughter since just before puberty. In her early teens the symptom occurred almost daily, but now, with fewer occasions for laughter, it occurs three or four times a month. Drugs for her epilepsy, migraine or rashes have made no difference to the incontinence, which she accepts as a problem to be borne patiently because there is no cure.

As already mentioned, Mac Keith (1959) reported two cases, and Mac Keith (1964) three further cases, two of which were presented in 1959 by Mr. S. M. C. Clarke at a paediatric meeting in Brighton, and the third by Dr. Richard Pugh of Hull. Since then other cases have been mentioned to him by colleagues, but the case details not always given (personal communications). With the three cases reported here, the total number is thirty-two, eight males and nineteen females, with the sex not mentioned in five. The age of onset has varied from four years to puberty, and seven, all females, were already adult when first seen or reported to Mac Keith. One case with giggle micturition is the mother of a well-known paediatrician and he, in his youth, when he giggled, developed transient paresis of the right hand.

Uncontrollable laughter is sometimes a feature of epilepsy, and was first reported by Trousseau in 1873. It may be familial, and recognisable cerebral lesions are sometimes associated with it (Wood *et al.* 1958). Other momentary sensations may exist in these patients, whose laughter, in this sense, is 'spontaneous', whereas with giggle micturition the laughter is appropriate and can be controlled at will, although the stream of urine, once begun, cannot. Laughter also has some specific effect on reflex motor function, the example being cataplexy. Mac Keith (1964) discusses this in some detail, and gives an excellent bibliography. He also goes through the physiology of micturition, and refers to the special features of giggling, which combines laughter with high levels of excitement or with fear or anxiety. Stress incontinence, whether caused by laughter or other activity which raises the intra-abdominal pressure, is a totally different syndrome, although many papers fail to differentiate it from giggle micturition.

It may be significant that epilepsy is, or was, present in two of the three new cases reported in this paper, and that marked emotional lability was present in the third and presumably in her family. Williams (1968) suggests 'failure of nervous control' as a possible cause, but does not elaborate. He states that no effective treatment is known.

Does sympathetic discussion and explanation seem to help? Mac Keith (1964) feels that it does, but one wonders if the patients merely fail to return although the symptom persists.

The age of onset in the early school years coincides with the age at which giggling becomes a part of normal behaviour, and perhaps the higher incidence in females is associated with the fact that, on the whole, girls giggle more than boys and up to a later age.

Vincent (1959), in an anatomical study on cadavers, noted that raising the perineum would close the urethra and prevent incontinence. He has devised a simple appliance using an inflatable balloon which exerts firm pressure on the perineum.

Millard (1966) has devised a conditioning apparatus with a genital electrode which gives two slight shocks, with an interval of two seconds, as soon as a drop of urine reaches it. His patient was cured with this.

Discussions with paediatricians, neurologists and urologists over the past twelve years have not revealed any other new facts or theories, or provided further help with management.

Summary

It would appear that giggle micturition is a distinct syndrome, in which there is sudden, involuntary, uncontrollable and complete emptying of the bladder on giggling, in a person who is otherwise fully continent. It is commoner in girls than boys (thirty-two cases are summarised here, including the three new cases reported). It may clear up in adolescence, but in some cases it does not. The sufferers experience much embarrassment and discomfort, but seldom seek the doctor's help as they believe it is incurable. It is probably much commoner than the medical profession realises, and research as to its causation and management are therefore most desirable and long overdue.

Finally, with acknowledgement to Dr. Freddie Hudson, the following ditty, heard during World War II and probably from Merseyside, neatly summarises the position:

Will you please see my daughter, Sir,
She cannot hold her water, Sir,
And every time she laughs, she pees!

It's always the same, Sir,
There she goes again, Sir,
Don't make her laugh, Sir, please!

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