

## LETTERS TO THE EDITOR

### Urinary retention in a young female schizophrenic treated successfully by administration of diazepam

Sir, – We describe the case of a 27 year old caucasian female with a previous diagnosis of schizophrenia who, when admitted because of relapse was suffering from urinary retention. This lasted for four weeks throughout her traumatic hospital stay and did not resolve when anti-psychotics were discontinued. The condition responded to a single oral dose of Diazepam. The aetiology of the retention was regarded as multifactorial in origin, being precipitated possibly by stress and drugs and maintained by repeated catheterization and psychogenic factors.

#### Case Report

Our patient was admitted to the psychiatric ward of a general hospital. For three days prior to admission, she had become markedly withdrawn and almost mute. Her only responses to questioning were in monosyllables. For two dates prior to admission she had been on Thioridazine 50mg t.i.d.

Within the previous three years she was admitted twice following an identical presentation and a third admission had the addition of paranoid delusions. On each occasion she responded to Thioridazine medication. Her previous admissions were precipitated by stress. A precipitant on this occasion was that her sister, with whom she lived, had become engaged to be married and planned to emigrate in the coming year. Also for two weeks prior to admission she was under stress at work, fearing redundancy.

Premorbidly, her personality was schizoid in nature. She had few social outlets and very few friends. She lived a quiet, independent life and functioned well as a clerical worker.

On routine physical examination at the time of admission, an abdominal mass, arising from the pelvis, to the level of the umbilicus, was noted. Thioridazine was increased to a dose of 75mg t.i.d. She was incontinent of urine over the following days and this was attributed to her mental state. A low grade pyrexia was noted on the fourth morning, and later that day the patient, in the presence of a nurse, suffered a grand mal fit. This was promptly followed by a respiratory and then a cardiac arrest. She was successfully resuscitated and transferred to the Intensive Care Unit (ICU), where she was ventilated. Following transfer to ICU the patient was routinely catheterised and three litres of urine was obtained. A diagnosis of pulmonary embolus was made on the basis of chest x-rays, serial electrocardiograms and a Ventilation Perfusion Lung Scan. She was heparinized and commenced on Warfarin two days later. She was successfully taken off the ventilator.

Three days after admission to ICU, her oral Thioridazine medication was recommenced. Her mental state was unchanged. The patient's catheter was removed. However, she failed to pass urine and developed a bladder mass again, without experiencing any pain. In view of the marked anti-cholinergic effects of Thioridazine, she was changed on the following day to Haloperidol 7.5mg t.i.d. which has lesser action in this regard. The patient was transferred to a general medical ward. Over the next three days her psychiatric state gradually resolved. She became more communicative and less withdrawn. After a further three days, her family felt that she was back to her "normal" self. Her urinary retention persisted throughout however, and she had to be intermittently catheterized, despite the change in drug treatment. Ten days after admission, the patient was transferred back to the psychiatric ward. All psychotropic medication was stopped in view of the anti-cholinergic properties of these drugs. Her only medication at this time was Warfarin. Stopping psychotropic drugs had no effect on her urinary problems.

The patient admitted that she had been very worried about

the loss of sister and possible loss of her job for approximately one week prior to admission. Neurological examination, as on admission, revealed no abnormality. Routine screening, including haematological and biochemical profile (including CPK), was normal. A lumbar puncture excluded demyelinating disease. A visual evoked response was also within normal limits. At this stage the patient became very anxious because of all these tests, and was commenced on Diazepam 5 mg t.i.d. Within four hours of commencing Diazepam, fourteen days after anti-psychotics had been discontinued, she passed urine normally – approximately 3 litres over twenty-four hours. Her abdominal mass disappeared and she continued to pass urine normally. The Diazepam was stopped the following day without any ill effect.

Now two years later this girl is very well, mentally and physically. She suffered a similar relapse 6 months ago and was treated successfully with Thioridazine (dosage of 75 mg t.i.d.) and suffered no urinary symptoms. She is maintained on Thioridazine, 100 mg nocte.

#### Discussion

Acute urinary retention occurs rarely in woman and reported causes include behavioural disturbances and psychiatric disorders.<sup>12</sup> Successful treatment includes bladder training,<sup>3,4</sup> biofeedback;<sup>5</sup> psychotherapy<sup>6</sup> and administration of a diazepam and bethanochol.<sup>7,8</sup>

It may be that the urinary retention was partially precipitated by Thioridazine which has marked anti-cholinergic side effects. However, on three separate occasions this patient was treated by Thioridazine in similar dosage for at least one month and suffered no urinary retention. The retention only resolved following administration of a diazepam despite the fact that the psychotropic medication had been discontinued for more than two weeks. The single dose of diazepam could have worked in two ways – primarily, as an anxiolytic and possibly also by relaxing the external urethral sphincter. Although there are reports of urinary retention complicating intravenous diazepam,<sup>9,10</sup> diazepam is reported as being useful in shortening the interval between surgery for incontinence and spontaneous voiding post-operatively.<sup>11</sup> In addition to being an anxiolytic, diazepam can reduce external urethral spasm.<sup>12</sup>

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