## Bladder calculus presenting as excessive masturbation

ACD De Alwis<sup>1</sup>, AMRD Senaratne<sup>2</sup>, SMPD De Silva<sup>3</sup> and VSD Rodrigo<sup>4</sup>

Masturbation in childhood is a normal behaviour which most commonly begins at 2 months of age, and peaks at 4 years and in adolescence. However excessive masturbation causes anxiety in parents. We describe a boy with a bladder calculus presenting as excessive masturbation.

## Case history

A 4-year old boy was brought a history of frequent masturbation of one year's duration. He was a product of non-consanguineous parents, born at term, weighing 3250 g, after an uneventful pregnancy.

At 10 months of age he was investigated for haematuria and diagnosed to have a urinary tract infection and had a normal abdomen ultrasound scan and micturating cystourethrogram.

The episodes of masturbation were first noticed by parents at the age of 3 years. They begin with the child touching, scratching and shaking the genitalia, followed by arching of the back, twisting of the neck and rhythmic pelvic movements. An episode lasts about 5 minutes and ends with generalised flushing of the body, profuse sweating and rapid breathing. The frequency of events has been 5–12 a day, most occurring at home in bed or in a room at pre-school.

His pre-school performance had deteriorated over the past 6 months with the child becoming shy, refusing to play and to participate in singing and dancing activities. The parents were reluctant to take the child to public places fearing that he would masturbate.

On examination the child was shy and kept holding his genitalia throughout consultation. He weighed 15 kg (10<sup>th</sup> centile), and his height was 92 cm (below 3<sup>rd</sup> centile). Examination of systems was normal apart from an itchy, papular rash suggestive of scabies in the scrotum and penis.

Direct observation in the ward excluded seizure, confirmed by a normal EEG performed immediately after an event.

Urine analysis and culture were normal, and ultrasound scan of the abdomen revealed a 1.5 cm calculus in the bladder, confirmed by an xray (Figure 1). Blood counts, blood urea, serum creatinine and electrolytes were normal.

Vesicolithotomy was performed and an egg shaped calculus weighing 1.37 g removed (Figure 2). The stone



Figure 1. Xray of the abdomen showing the bladder calculus.

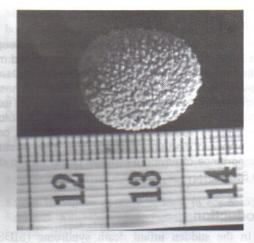


Figure 2. Calculus removed at surgery.

was composed of calcium oxalate, phosphate, ammonium and uric acid. Metabolic screen revealed a normal serum calcium, phosphate, and 24-hour urinary calcium and phosphate.

The frequency of masturbation declined dramatically following vesicolithotomy, and at 3 month follow up it was noted to be only once a month. The child appeared cheerful and he has begun to take part in all social activities at pre-school.

## Discussion

Perineal skin irritation, genitourinary disorders, sexual abuse and emotional deprivation are causes of excessive masturbation in children [1,2]. Intravesical calculus is a recognised cause of perineal skin irritation and a single case of a bladder stone presenting as

<sup>1</sup>Paediatrician, <sup>2</sup>Registrar, <sup>3</sup>Radiologist, <sup>4</sup>Surgeon, General Hospital, Ratnapura, Sri Lanka. Correspondence: AMRDS, General Hospital, Ratnapura (Competing interests: none declared). Received 31 January 2006 and accepted 8 April 2006. excessive masturbation has been previously reported in a child [3].

Pain of a bladder calculus initiated by a stone impacting on the bladder neck is referred to the tip of the penis, scrotum and perineum [4]. The irritation causes frequent handling of his genitalia by the child, ending up in excessive masturbation. The marked reduction in the number of episodes of masturbation after removal of the stone confirms the idea that the cause of excessive masturbation in this child was the intravesical calculus. This case illustrates the importance of investigating a child with excessive masturbation for a genitourinary disorder.

## References

- Johnston EC, Freeman CPL, Zeally AM. Companion to psychiatric studies Churchill Livingstone, 6th edition; p 649-81.
- Unal F. Predisposing factors in childhood masturbation in Turkey. European Journal of Pediatrics 2000; 159: 338–42.
- Kesaree N, Umesh L, Kallinath S, Kadli NK, Banapurmath CR. Bladder stone presenting as excessive masturbation. *Indian Paediatrics* 1994; 31: 873–4.
- Basler J, Ghobriel A. Bladder stones, available from http://emedicine.com/cgi-bin/foxweb.exe, last updated, Nov 2004.