Penile erection complicating transurethral surgery

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Introduction
While penile erection is a rare occurrence under general and spinal anaesthesia, it can lead to complications for transurethral surgery. Such complications include excessive bleeding and damage to the urethra. It can also result in delay or postponement of surgery. Studies in humans and animals have attempted to understand this phenomenon and management strategies have been developed, should it occur.

Case presentation
A well 22-year-old male presented for transurethral removal of a bladder stone. A spinal anaesthetic was performed uneventfully. After a female urologist took over the case, the patient developed a penile erection that interfered with the performance of the procedure. The surgery was completed successfully, however, and this case inspired a literature review.

Body
Penile erection is a complex neurovascular event that is also psychologically and hormonally modulated. This presentation will review the neural pathways and chemical mediators involved and discuss pathological states when tumescence occurs. A scientific approach to management will be postulated.

While no fixed protocols exist, a number of strategies have been employed to treat intraoperative penile erection, and their results differ in efficacy, speed of onset, safety and route of administration. The use of intracorporeal injections with alpha adrenergic agonists has met with success. The intravenous use of parasympatholytic agents, as well as beta 2 adrenergic agonists, may also be of use. Other strategies employ the deepening of anaesthesia or the use of dissociative anaesthesia to cause detumescence.

Conclusion
This presentation suggests an approach to the management of penile erections that complicate transurethral procedures.