High-strength Neodymium Magnetic Beads: A Rare Foreign Body in the Bladder of an Adolescent

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ABSTRACT

This article reports the case of an adolescent who repeatedly inserted high-strength magnetic beads into his urethra for erotic reasons. The beads migrated into his bladder requiring a cystostomy to remove them. The available literature is reviewed.

Introduction

The author reports the case of an adolescent who repeatedly inserted high-strength magnetic beads into his urethra for erotic reasons. The beads migrated into his bladder requiring a cystostomy to remove them. The available literature is reviewed.

Case presentation

A 16-year-old patient presented with mild hematuria after the transurethral insertion of 25 high-strength neodymium magnetic beads. In multiple opportunities during the past year, he introduced the magnetic beads inside his urethra to enhance his sensation during masturbation. A plain film of the abdomen confirmed the presence of 25 magnetic beads within the bladder (Fig. 1). The patient was taken to the operating room where a cystoscopy was carried out with an offset cystoscope, confirming the presence of the magnetic beads within the bladder. We tried unsuccessfully to remove the beads with a variety of grasping forceps and stone baskets. They could not, however, be removed as they were strongly attached to each other. A small cystostomy was performed and all the beads were removed. The postoperative period was uneventful. During his 1-day hospitalization, the patient had a preliminary psychological evaluation.

Discussion

We reviewed the available literature finding only a pediatric case report of an 11-year-old boy who inserted several magnetic beads into his bladder, which were extracted individually with a stone basket and grasping forceps.1 The authors did not mention if the magnets were high-strength neodymium magnetic beads. Rahman2 reported the case of a 12-year-old boy that introduced a magnet in his anterior urethra and placed a second magnet at the same level on the ventral aspect of the penile shaft. Five days later, the magnet was found deeply embedded into the local tissues and attached to the intraurethral magnet, resulting in an urethrocutaneous fistula.

Levine et al3 reported 3 adult cases with magnetic beads inserted into their bladder. In the first 2 patients, the beads could not be removed using graspers and baskets; hence, a cystostomy was done to remove the magnets. The third patient was taken directly to the operating room for open removal of the beads. Graziottin4 reported another adult patient with transurethral insertion of magnetic spheres into the bladder.

Cases of self-introduced foreign bodies in the bladder are infrequent in children. Ceran5 reported the case of a 6-year-old girl with a history of self-introduction of a pin in her bladder which was removed endoscopically. Mukerji et al6 reported the case of a 12-year-old female who was found to have a 142-cm knotted electric cable in her bladder, which was removed cystoscopically. Dhananjay et al7 reported the case of a 6-year-old boy who fell over a wooden splinter injuring his anal and perianal region; 1 year later, he presented with intermittent dysuria and was found to have 3 calculi with a core of wooden splinters. Benz et al8 reported the case of an 11-year-old boy who presented with findings mimicking the symptoms of nephritis and had a 30-cm plastic tube inside his bladder.

Van Ophoven and deKernion9 presented a review of 800 case reports of genitourinary foreign bodies published in the

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English literature. They advise that the method of removal of urethral and bladder foreign bodies depends on the size and mobility of the object. Thus recommending that when possible, endoscopic and minimal invasive techniques of removal should be used.

Several cases with complications resulting from the ingestion of high-power magnetic beads have been reported, leading to complications such as bowel perforations, intestinal obstruction, and bowel fistula. The Center for Disease Control reported several cases of ingested magnets resulting in severe complications.

Conclusion

The transurethral insertion of high-power magnetic beads is a rare but significant hazard. From our limited experience and a review of the literature, we conclude that a cystostomy must be undertaken if the transurethral attempt to remove the beads fails. We present the second pediatric case reported in the literature with high-strength magnetic beads inserted into the bladder. Cases of self-introduced foreign bodies in children’s bladder are also infrequent. We recommend, however, that pediatric urologists become familiar with the reported experience.

Conflict of interest

The author has no conflicts of interest to declare.

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