Delayed Endoscopic Retrieval Of Retained Bullet in the Urethra

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Introduction

Bullet injury of urethra is uncommon but it is usually involved in perineal or penile penetrating injuries. Bullet in urethra should easily be detected at the time of primary management either by plain radiograph, retrograde urethrography (RGU) or sonography and removed [1]. We present a case of bullet injury of urethra in which an intra-urethral bullet was missed at the time of primary management and was removed from anterior urethra five months later, endoscopically. No such case has ever been reported in world literature.

Case Report

A 37 year old serving soldier sustained gun shot wound (GSW) of perineum in September 2000. He had inability to pass urine along with blood at urethral meatus. Wound of entry of bullet was seen one-inch lateral to the anal verge on right side and urinary bladder was palpable above symphysis pubis. No exit wound was present. Radiograph of pelvis revealed a bullet lodged obliquely behind symphysis pubis. Exploratory laparotomy at peripheral hospital revealed retroperitoneal haematoma in left pelvic region and contusion of bladder wall. A 2"x 2" lacerated wound 1" lateral to anal verge on right side and partial rupture of bulbar urethra was seen in perineum. Suprapubic cystostomy (SPC), pelvic colostomy, perineal wound debridement and repair of bulbar urethra over a catheter were done. Bullet could not be found in the perineum or abdomen. Urethral catheter was removed one month later and patient voided per urethra in a poor stream with leak of urine per anum during voiding. SPC was removed ten days after removal of urethral catheter. RGU showed a bulbar urethral stricture and a bullet in the vicinity of bulbo-membranous urethra. Colostomy was closed and patient was sent on sick leave. He reported to Urology Centre for further management four and half months after the injury with persistence of symptoms. RGU / micturating cysto urethrography (MCU) revealed a stricture in bulbar urethra with urethro-rectal fistula and a bullet lodged in vicinity of

bulbar urethra (Fig 1).

Urethroscopy revealed a bullet in proximal bulbar urethra entering from right lateral wall distal to an approximately 5F stricture. Bullet was retrieved with the help of 26F resectoscope and Collinge knife. Optical internal urethrotomy (OIU) was done using 21F urethrotome and Sachse's knife at 12 O'clock position. A 20F Foley catheter was indwelled after OIU. Patient made uneventful post-operative recovery and catheter was removed on 10th post-operative day. He voided in a good stream without urinary leak per anum and urethral calibration was 20F and easy. Post-operative RGU/MCU showed adequate urethra without urethro-rectal fistula (Fig 2). Patient has been on follow up for one and half years and is on self-urethral calibration daily, without any symptom or complication.

Discussion

The management of partial transection of anterior urethra following penetrating injuries is controversial. Optional therapeutic techniques range from a primary sutured re-approximation to urinary diversion alone [2]. In devastating injury of urethra and perineum following

Fig. 1 : Micturating cystourethrogram showing stricture in bulbar urethra, a bullet lying in vicinity urethra and a urethro-rectal fistula

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Fig. 2 : Micturating cystourethrogram after retrieval of bullet and OIU showing adequate urethra and no urethro-rectal fistula

GSW, initial management should be meticulous haemostasis and careful debridement to preserve any viable genital and rectal tissue and proximal urinary diversion by supra pubic cystostomy. Proctoscopy is mandatory in such cases [3]. Numerous cases of intra urethral foreign bodies of great variety and unusual nature have been reported. Such foreign bodies are usually introduced for sexual stimulation and / or during an intoxicated or confused state [4]. Various methods of removal of urethral foreign bodies have been

described [1,5,6]. No case of removal of intra-urethral bullet with its early removal or a retained bullet in the human urethra with its delayed endoscopic retrieval has ever been reported in world literature. Only one case of an air gun projectile in the urethra of a dog has been reported in German literature [7].

References

1. Brazilai M, Cohen I, Stein A. Sonographic detection of a foreign body in the urethra and urinary bladder. *Urologia Internationalis* 2000;64(3):178-80.
2. Husman DA, Boone TB, Wilson WT. Management of low velocity gunshot wounds of the anterior urethra: the role of primary repair versus urinary diversions alone. *J Urol* 1993;150(1):70-2.
3. Franco ER, Ivatury RR, Schwalb DM. Combined Penetrating Rectal and Genitourinary Injuries: A challenge in management. *J Trauma* 1993;34:347-53.
4. Ali Khan S, Kaiser CW, Dailey B, Krane R. Unusual foreign body in the urethra. *Urologia Internationalis* 1984;39(3):184-6.
5. Phillips JL. Fogarty Catheter extraction of unusual Urethral foreign bodies. *J Urol* 1996;155(4):1374-5.
6. Schnall RI, Baer HM, Seldmon EJ. Endoscopy for removal of unusual foreign bodies in urethra and bladder. *Urology* 1989;34(1):33-5.
7. Rocken H. An air gun projectile in the urethra of a dog. *Berliner und Munchener Tierarztliche Wochenschrift (German)* 1988 Mar;101(3):91-2.

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