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Post-coital hematuria
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·*Case Report*·

Post-coital gross hematuria: an unusual presentation of benign prostatic hyperplasia

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Abstract

Aim: To describe an unusual symptom of benign prostatic hyperplasia (BPH). **Methods:** A patient presented to our urology clinic having experienced post-coital gross hematuria for 2 years. He had not experienced lower urinary tract symptoms (LUTS). A series of examinations were performed to determine the source of bleeding. **Results:** The prostate was defined as the active bleeding source responsible for the patient's post-coital hematuria. Endoscopic fulguration did not alleviate the symptom. The use of dutasteride, a dual inhibitor of 5α-reductase, solved the problem. **Conclusion:** This study reports for the first time that post-coital gross hematuria is one of the clinical presentations of BPH, which can be successfully treated with 5α-reductase inhibitor. *(Asian J Androl 2007 Nov; 9: 856–858)*

Keywords: prostate; coitus; hematuria

1 Introduction

Patients with benign prostatic hyperplasia (BPH) usually complain of bothersome lower urinary tract symptoms (LUTS), such as urinary frequency, urgency, nocturia, decreased and intermittent force of stream and the sensation of incomplete bladder emptying [1]. Herein, we describe an unusual presenting symptom of BPH in a man who presented to having experienced post-coital gross hematuria for 2 years. We describe here the diagnostic modalities, possible relationship between sexual intercourse and prostatic bleeding as well as treatment applied to this patient.

2 Case presentation and management

A 61-year-old healthy man with a 2-year history of post-coital painless gross hematuria visited our urology clinic. The patient's medical history revealed that the patient had experienced neither hematospermia nor urethral bleeding. He did not have a history of sex-related injury or LUTS. Gross hematuria occurred after each session of sexual intercourse, which would persist for 1 to 3 days. Occasionally, acute urinary retention would occur as a result of blood clot obstruction. The patient has been afraid to partake in sexual activity. A series of examinations, including coagulation studies, urinalysis, urine culture, urine cytology, prostate specific antigen (PSA), i.v. pyelography, transrectal ultrasonography and

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cystourethroscropy (Figure 1A) under local anesthesia did not reveal any abnormality except BPH. Based on these negative results, cavernosography and spongiosography were performed after artificial erection, which did not reveal any obvious fistula between corpus cavernosum/spongiosum and urethra. Repeated cystourethroscopy, during semi-tumescent penile status, was then performed, showing multiple active bleeders at the prostate (Figure 1B). Transurethral fulguration was performed smoothly followed by 16 Fr Foley indwelling for 3 days; however, the symptom recurred 1 month later. Given the diagnosis of prostate-related gross hematuria, the patient was treated with finasteride 5 mg per day. However, he discontinued therapy at 3 months because finasteride did not appear to reduce the bleeding frequency and severity. Dutasteride (0.5 mg per day) was then given, and the patient was sexually active 1 month later without urinary complaints. The patient has remained free of symptoms over at least 20 months during dutasteride therapy.

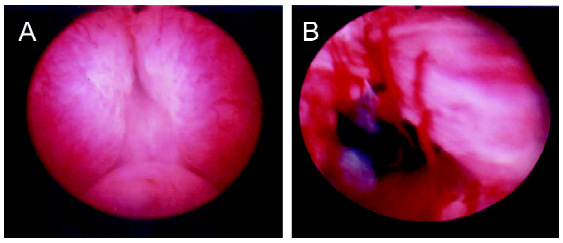

Figure 1. Cystourethroscopy of the patient's flaccid penis shows normal urothelium at the prostatic urethra (A). After an artificial erection, the urethroscopy shows multiple active bleeding sites at the prostate (B).

3 Discussion

Male post-coital gross hematuria is a rare clinical symptom; however, it can be very frustrating, can affect the patient emotionally and can reduce the sexual pleasure as perceive by the patient. From the published literature, male post-coital gross hematuria can be caused by different pathological entities, including papillary adenoma of the prostatic urethra [2, 3], prostatic utricular papilloma [4], nonvaricose abnormal posterior urethral vessels [5], urethral polyp [6], arterial fistula [7] and urethral injury [8]. Based on the negative findings of cystourethroscopy and lack of genital trauma history, we confirmed that all of these pathological conditions did not exist in this patient. Additionally, the normal findings of hematological study, urine investigation, PSA, i.v. pyelography, cavernosography and spongiosography clinically excluded coagulopathy, inflammation, neoplasm or corporo-urethelial fistulae. In the present case, the only positive finding was BPH. Together with the identification of active bleeding sites at the prostate under a semi-tumescent penis, we believed that the patient's gross hematuria could be the result of prostate-related bleeding. Because the patient did not complain of any LUTS, the findings of the present case highlight post-coital gross hematuria acting as one of the presenting symptoms of BPH.

To date, little is known about the relationship between sexual intercourse and prostatic bleeding. However, spontaneous prostate bleeding is related to increased vascularity within hyperplastic prostate tissues and abnormal friable prostate tissue exposed in the prostatic urethra [9]. In the present case, a likely explanation for the patient's symptom is that the bleeding might be derived from the rupture of friable prostate vessels. During emission/ejaculation, increased sympathetic tone, contraction of prostate smooth muscle and closure of the bladder neck would significantly increase prostatic urethral pressure, which might lead to the rupture of the friable vessels of the prostate. Although we are unable to confirm this mechanism in the present case, the determination of prostatic vascular density might help in elucidating the pathophysiology of male coital hematuria in future.

The treatment of prostate-related bleeding includes expectant management, 5α-reductase inhibitor, endoscopic management, angiographic embolization and open surgery [10–12]. In the present case, endoscopic fulguration appeared to have little benefit because the symptom recurred 1 month later. Although finasteride therapy has been shown to be an effective method for BPH-related gross hematuria [10], it seemed to have little effect on our patient over the 3-month period it was taken. In a prospective randomized study, patients with BPH-related gross hematuria were treated with finasteride; the incidence of hematuria was significantly decreased after 9 months of treatment [11]. This might explain the lack of efficacy in our patient and stress the need for longer treatment for resolution. However, dutasteride, a dual inhibitor of 5α-reductase, rapidly achieved significant improvement in treating the patient's gross hematuria.

Although the reason behind this difference is yet to be determined, dutasteride has been shown to result in greater and consistent suppression of serum dihydrotestosterone (DHT) at 90%, compared with 70% with finasteride [13]. Blocking the DHT could lead to decreased angiogenesis of the prostate and, therefore, decreased prostatic bleeding [10].

In summary, in addition to LUTS, we report for the first time that post-coital gross hematuria is one of the BPH-related symptoms, which could be successfully treated with 5α-reductase inhibitor.

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