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Inflammation and infection

Ocular abscess: An extremely rare complication of transurethral resection of the prostate

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ABSTRACT

Ocular abscess following transurethral resection of the prostate is an rare complication. We report the case of a male who developed an ocular abscess with purulent melting of the eye after undergoing TURP for benign prostatic hyperplasia. The patient successfully underwent the TURP procedure. However, he developed a right epididymitis and subsequently an ocular abscess on the same side. Treatment involved dual antibiotic therapy for the epididymitis, followed by incision of the ocular abscess and intravenous antibiotics. Multidrug-resistant *Escherichia coli* was identified in both ocular and postoperative urine cultures. This case highlights the rarity and potential serious complications following TURP.

1. Introduction

Benign prostatic hyperplasia (BPH) is a common condition in aging men, and transurethral resection of the prostate (TURP) is the standard surgical treatment for moderate prostate sizes. TURP is a minimally invasive endoscopic procedure. Although considered safe, it can occasionally be associated with serious complications, particularly infectious complications. We present a unique case of ocular abscess following TURP. This report describes a rare occurrence of an ocular abscess complicated by purulent melting of the eye following TURP.

2. Case presentation

A 62-year-old man presented with a two-year history of lower urinary tract symptoms and recurrent episodes of acute urinary retention, despite receiving medical treatment for benign prostatic hyperplasia (BPH). Preoperative urine culture was negative. A successful transurethral resection of the prostate (TURP) was performed to alleviate the obstruction caused by an enlarged prostate. However, six days after the procedure, the patient developed right epididymitis. The patient was initially started on dual antibiotic therapy, consisting of a third-generation cephalosporin and an aminoglycoside, to treat the diagnosed orchiepididymitis. The immediate postoperative course showed favorable outcomes, with the patient becoming afebrile. However, four days later, the patient presented with a decrease in visual acuity and ocular redness. An ophthalmological examination confirmed the diagnosis of an ocular abscess, which was subsequently incised and drained by the ophthalmologist (Fig. 1). The patient received intravenous antibiotic therapy with a broader spectrum, using imipenem, in addition to rifampicin eye drops. Ocular swab samples, post-operative urine culture, and blood culture identified the same multi-resistant *E. coli* strain. It is worth mentioning that the ocular abscess and orchiepididymitis occurred on the same side. After 21 days of antibiotic treatment, the orchiepididymitis was completely cured, as was the ocular damage.

3. Discussion

TURP is a commonly performed surgical procedure for managing lower urinary tract symptoms caused by benign prostatic hyperplasia. While TURP is generally considered safe, it is not without its complications. Common complications include voiding failure, revision surgery, urinary tract infection (UTI), and bleeding.[1,2] Ocular abscess as a complication of TURP is a rare occurrence and has not been extensively described in the literature. The overall infection rate following TURP is relatively low, with reported incidences of postoperative infections ranging from 6% to 21.6%.[3,4] However, the specific incidence of ocular abscesses in the context of TURP remains poorly documented.

In the presented case, the patient developed an ocular abscess following TURP. This highlights the importance of recognizing and managing uncommon complications that can arise after this surgical procedure. The presence of multidrug-resistant *Escherichia coli* further

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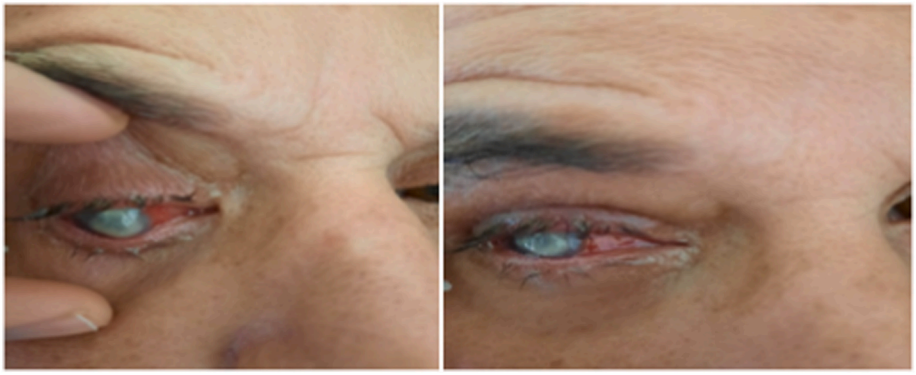

Fig. 1. Showed a tender and fluctuant mass within the red eye. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

adds to the complexity of treatment, necessitating adjustments in antibiotic therapy. Preventing post-TURP infections involves adherence to infection control measures, including proper surgical technique, appropriate use of prophylactic antibiotics, and careful postoperative monitoring.[5] Identifying and addressing risk factors for infection, such as preoperative bacteremia and prolonged procedure duration, are also crucial in reducing the incidence of complications.

4. Conclusion

Our case involves a male patient presenting with lower urinary tract symptoms. Clinical examination, along with abdominal and pelvic ultrasound, revealed prostate enlargement. TURP was performed, and there were no surgical complications during the procedure. However, after discharge, the patient developed orchiepidymitis, followed by an ocular abscess, most likely due to E. coli sepsis. The patient received appropriate antibiotic therapy, but a purulent melting of the eye quickly ensued.

References

1. Emami S, Alfaham F, Shakiba B, Moghimian M, Mirzaasgari Z. Loss of vision after transurethral resection of prostate: a case report. *Urol Case Rep*. 2021 2;38, 101739.
2. Langan RC. Benign prostatic hyperplasia. *Prim Care*. 2019;46(2):223–232.
3. Smith RD, Patel A. Transurethral resection of the prostate revisited and updated. *Curr Opin Urol*. 2011;21(1):36–41.
4. Colau A, Lucet JC, Rufat P, Botto H, Benoit G, Jardin A. Incidence and risk factors of bacteriuria after transurethral resection of the prostate. *Eur Urol*. 2001;39(3): 272–276.
5. Rassweiler J, Teber D, Kuntz R, Hofmann R. Complications of transurethral resection of the prostate (TURP)–incidence, management, and prevention. *Eur Urol*. 2006;50 (5):969–980.