



## Case Report

# An extremely rare complication of transurethral resection of the prostate: A case report

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## ABSTRACT

**Introduction:** Benign prostatic hyperplasia (BPH) is worldwide condition in male patients after the fourth decade. Most patients present with lower urinary tracts symptoms related to BPH. Transurethral resection of the prostate (TURP) is considered the standard treatment for decades.

**Presentation of case:** A 56-year-old male patient presented with three months of lower urinary tract symptoms with one time a life of complete urinary retention. Ultrasound showed an enlarged prostate (90 cc). We performed transurethral resection of the prostate. One week later, he presented with complete loss of vision in the right eye with pain in the left leg. Left lower limb ultrasound revealed deep venous thrombosis. Brain MRI demonstrated left occipital lobe infarction. We started anticoagulants therapy. Three days later, he reclaimed his vision acuity completely.

**Clinical discussion:** Cerebrovascular accident after transurethral resection of prostate is considered an extremely rare event in urological practice. Full work-up to detect the cause should be performed. In most cases, cardiac anomalies are the main responsible of such events.

**Conclusion:** Loss of vision is a rare entity after TURP surgery. Anticoagulant therapy should be started once the diagnosis of occipital lobe infarction is confirmed.

## 1. Introduction

For more than nine decades, transurethral resection of the prostate remains the gold standard for the surgical treatment of lower urinary tract symptoms due to benign prostatic obstruction [1].

The most common surgical complications include failure to void (5.8%), surgical revision (5.6%), urinary tract infection (3.6%) and bleeding (2.9%) [2].

Here, our patient had a cerebrovascular accident after one week of TURP surgery.

We present a successful treatment of this rare complication.

This case report examines one such presentation in line with the SCARE guidelines [3].

## 2. Presentation of Case

A 56 years old male presented to our out-patient urological clinic with three months of lower urinary tract symptoms and one episode of acute urinary retention treated with catheter drainage for five days. Past

medical history demonstrated diabetes mellitus type II for the past three years controlled by metformin and daily exercises. He had left inguinal hernia which was repaired five years ago. Physical examination showed normal systems except smooth and enlarged prostate by digital rectal exam. Blood pressure 135/85 mm/Hg and pulse 74/min. Abdominal and pelvis ultrasound showed normal kidneys and enlarged prostate (95 cc) urinalysis was sterile. After taking patient consent, we decided to perform monopolar transurethral resection of the prostate (TURP). On operation day, his vital signs were normal: blood pressure 130/80 mm/Hg, pulse 80/min. We started the operation by spinal Anastasia. The procedure went smoothly and it took 50 minutes to finish. One next day, discharged the patient with urethral catheter which was removed after three days of discharge. Urination was normal with no problems. After seven days of surgery, the patient was referred to our department of emergency with new complete loss of vision in the right eye. He also had left lower limb pain. We suspected deep venous thrombosis. Color Doppler ultrasound confirmed the diagnosis. Brain MRI showed left occipital lobe infarction (Fig. 1). Echocardiography revealed a patent foramen ovale (PFO).

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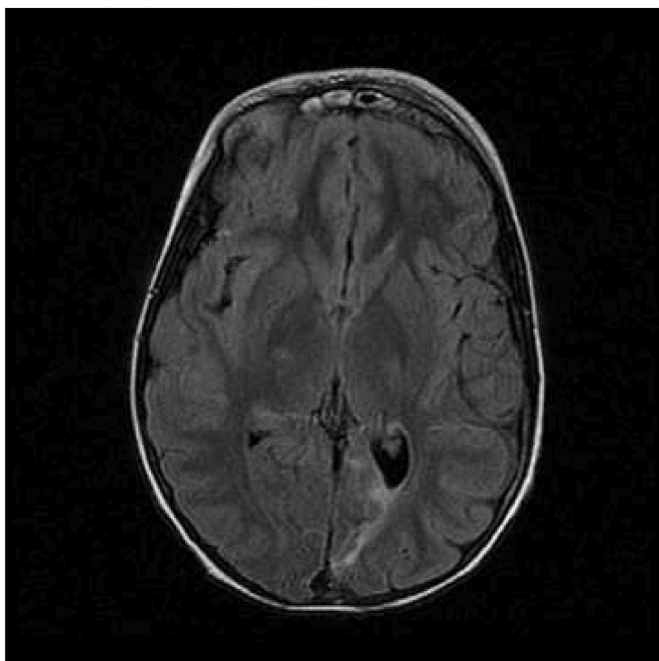
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**Fig. 1.** Axial flair MRI showing a left occipital lobe infarction.

Immediately, we started with suitable anticoagulant therapy. After three days, the patient regained his vision acuity and then, he was discharged and referred to cardiac surgery clinic for PFO closure.

### 3. Discussion

Benign prostatic hyperplasia (BPH) is the most common benign neoplasm of aging men and is present in approximately 8% of men in the fourth decade of life but up to 90% of men in the ninth decade [4].

Electrosurgical transurethral resection (TUR) of the prostate (TURP)'s place as the 'gold standard' symptomatic benign prostatic hyperplasia (s-BPH) surgical treatment has many challengers including medical therapy as a firstline treatment, and newer potentially better tolerated, minimally invasive techniques [5].

Deep vein thrombosis is considered one of the most common complications of surgery. In contrast, paradoxical embolism is one rare finding to consider after surgery, which could happen due to patent foramen ovale (PFO), which is a hole between the right and left atrium that closes after birth. PFO is a flap like valve between the two atria. Patent foramen ovale allows venous thrombosis to pass through to cause an arterial embolism in terminal branches [2].

In the medical literature there are few cases that reported cerebral vascular accident after transurethral resection of the prostate. According to Sepideh Emami et al. [2].

Our case is a male patient who has lower urinary tract symptoms. Clinical examination and abdominal and pelvis ultrasound revealed enlarged prostate. We performed transurethral resection of the prostate with no surgical complication in time of operation. After discharge, he presented with loss of vision in the right eye and signs and symptoms of deep venous thrombosis. The patient underwent brain MRI. We reached the diagnosis of left occipital infarction. Anticoagulant therapy was started immediately. Our patient regained his vision acuity completely.

### 4. Conclusion

Occipital infarction is a rare event after transurethral resection of the

prostate surgery. In such cases, echocardiography should be performed first to reach the definitive diagnosis.

Provenance and peer review, Not commissioned, externally peer-reviewed.

### Ethical approval

Written informed consent was obtained from the patient for publication of this case report and accompanying images, in line with local ethical approval requirements. No other requirements were stipulated.

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### Author contribution

Maher Al-Hajjaj: contributed in study concept and design, data collection, and writing the paper.

Ali Alali Aljool: contributed in data interpretation and writing the paper.

### Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

### Registration of Research Studies

N/A.

### Guarantor

The corresponding author is the guarantor of this manuscript.

### Declaration of competing interest

We declare there is no conflict of interest.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.amsu.2022.103591>.

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