International Journal of Research in Medical Sciences
Hilal R et al. Int J Res Med Sci. 2023 Jan;11(1):390-392
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: https://dx.doi.org/10.18203/2320-6012.ijrms20223671

Case Report

Giant prostatic hyperplasia: a case report from Aligarh

Rahida Hilal*, Farah Nafees, Iqbal Aziz, Simeen Usmani

Department of Surgery, Faculty of Unani Medicine, A. K. Tibbiya College, AMU, Aligarh, Uttar Pradesh, India

Received: 21 November 2022
Revised: 09 December 2022
Accepted: 21 December 2022

***Correspondence:**
Dr. Rahida Hilal,
E-mail: rahidahilal@gmail.com

ABSTRACT

Benign prostatic hyperplasia (BPH) is one of the most common conditions experienced by ageing males and a frequent cause of bladder outlet obstruction and macroscopic haematuria. "Giant prostatic hyperplasia" (GPH) is a term that describes rare cases of extremely enlarged prostate glands, weighing up to 500 g. Typically, patients with GPH have severe symptoms and seek medical care to treat their voiding complaints. GPH is an uncommon pathologic entity with only 10 reported cases of prostate glands exceeding 500. We report first case of GPH in Aligarh. A 60-year-old patient came to Surgery, OPD AKTCH, AMU, Aligarh with increased frequency of micturition, urgency, hesitancy and pain in upper abdomen. Massive prostatomegaly was found on digital rectal examination. The patient was successfully treated with open transvesical prostatectomy and had an uneventful postoperative recovery.

Keywords: Prostatic hyperplasia, Transvesical prostatectomy, Urgency, Hesitancy

INTRODUCTION

The prostate is a compound tubulo-alveolar exocrine gland of the male reproductive system. The function of the prostate is to secrete a slightly alkaline fluid, milky or white in appearance along with spermatozoa and seminal vesicle fluid. Benign Prostatic Hyperplasia abbreviated as BPH, is nonmalignant enlargement of the prostate gland and mostly found in older men. As BPH progresses, overgrowth occurs in the central area of the prostate called the transition zone, which wraps around the urethra causes pressure on the urethra which in turn lower urinary symptoms that have been the basis for diagnosing BPH. Typical presenting symptoms of BPH are urinary hesitancy, weak stream, nocturia, and incontinence. According to a report, the overall incidence rate was 15 per 1000 man. BPH often produces chronic and progressive lower urinary tract symptoms (LUTS) or complications as bladder stone, leading many men to seek treatment. Prostatic enlargement due to BPH rarely exceeds 100 gm, which occurs in only 4% of men over 70 years of age. Giant BPH is arbitrarily defined as specimens over 200 gm or 500 gm the lower threshold was suggested by Japanese authors, probably because BPH is rare in their country. The largest adenoma ever removed by supra pubic prostatectomy weighed 820 g, but the patient died of hemorrhage.[1-5]

BPH is a common condition that affects many ageing men and it may be associated with significant quality of life issues. GPH is a term that describes rare cases of extremely enlarged prostate glands, weighing greater than 500g.[4]

Typically, patients with GPH have severe symptoms and seek medical care to treat their voiding complaints**.** We report a case of removal of uncomplicated GPH the largest ever prostate in Aligarh by supra-pubic trans vesical prostatectomy in one piece successfully.

CASE REPORT

A 65-year-old man presented with mild to moderate LUTS of 5 months' duration. American urological association (AUA) score was 12. The vital signs showed blood pressure (BP) 130/80 mmHg; temperature 98˚F;

pulse rate 74-beats/minute. Abdominal palpation did not reveal any evident masses. On digital rectal examination, the anal tone was found to be normal, but the prostate was very large with a rubbery consistency and no palpable hard nodules. The upper border of the prostate could not be reached the patient underwent prompt bladder catheterization.

An ultrasound scan revealed a huge prostatic enlargement (480 gm) with moderately enlarged median lobe bulging into the bladder FBV 495 ml PRV 30 ml. Renal function tests random blood sugar and urine (R and M) investigations were in normal range. The patient's preoperative hemoglobin level was 12 gm/dl. His prostate specific antigen (PSA) level was 17.9 ng/ml. ECG was within normal limits. A computed tomography (CT) scan revealed normal kidneys but a prostate which was grossly enlarge in size with the median lobe (5.5 CC).

After the detailed examination and investigations, the patient underwent trans vesical suprapubic prostatectomy. The surgical procedure revealed a massively enlarged prostate with a median lobe occupying the bladder, with dilated and tortuous veins over it (Figure 1). The enlarged gland was enucleated completely in the classical trans vesical method. The enucleation caused moderate bleeding from the prostatic bed due to the large size and increased vascularity of the gland. This was managed by single unit of blood transfusion and fluid replacement in post-operative period. 22FR three ways Foley catheter was introduced via the urethra into the bladder and irrigation was continued with glycine. The procedure time was about 60 minutes. The prostatic adenoma, extirpated as a single piece, measured 11×10×4 cm, weighed about 530 gms (Figure 2). Final pathological analysis revealed a whitish, firm and multi-nodular surface with diffuse hemorrhagic areas compatible with prostatic nodular hyperplasia with the glandular squamous metaplasia.

Figure 1: Prostate gland per operative in the U. B.

Figure 2: Removed prostate gland.

DISCUSSION

A 94 years old male patient having 800 ml giant prostate with complaints of macroscopic haematuria and clot retention reported by Wang et al, examination reveals tender suprapubic mass and a large prostate with no malignant features on digital rectal examination but the patient managed conservatively due to age and comorbidities.[6]

Huang et al reported a case of 77 years old patient with the complaints of nocturia and gross haematuria his PSA was 37 plg/l and maximum flow rate was 10 ml/sec treated successfully with suprapubic prostatectomy, it weighs about 450 gm and its volume/ dimensions was/were 11×10×8 cm and histo-pathological examination shows BPH.[7]

Case report of GPH weighs about 720 gm by Wroclawski et al in 82 years old male patient with painless sudden gross haematuria for 5 days without clot retention or clot colic and hypovolaemic shock. The digital rectal examination revealed a large prostate (greater than 100 gm) with benign consistency and without any palpable nodule, the patient was catheterized immediately due to acute renal insufficiency, with increased creatinine and urea levels of 1.9 mg/dl and 64.0 mg/dl, respectively. Abdominal ultrasound and CT scan demonstrated bilateral hydronephrosis (moderate) and a pelvic mass measuring 15x16x16 cm representing the prostate gland. Prostatic specific antigen (PSA) was 122.0 ng/ml and prostate trans-rectal ultrasound guided biopsy was done to exclude any evidence of malignancy (adenocarcinoma or sarcoma). The patient underwent an uneventful open trans-vesical prostatectomy (TVP). Histologically, the prostatic adenoma revealed a whitish, firm and multinodular surface with cysts and diffuse hemorrhagic areas compatible with prostatic nodular hyperplasia with multiple anemic infarction foci and glandular squamous metaplasia and measured around 17×16×13.5 cm and weighed 720 gm.[8]

Ketabchi et al published a case of 75 years old man was hospitalized because of severe LUTS (30 IPSS) with frequent history of catheterizations for urine retentions. The routine laboratory findings were normal and rectal digital examination of the prostate was grossly enlarged. The total PSA levels were 12 ng/ ml and the prostatic volume was about 350 ml. Supra pubic prostatectomy was performed and the large adenoma enucleated completely in one piece with 9 large stones. Blood loss was negligible and there were no operative complications. The removed specimen was 15×10 cm in diameter and weighed 312 gm. Pathologic examination revealed prostatic benign glands hyperplasia with systemic chronic inflammation.[9]

A 73-year-old man with the history of mild to moderate LUTS from last 5 months. AUA score was 12. Digital rectal examination revealed a firm suprapubic mass and massive prost-atomegaly. Transrectal ultrasound (TRUS) confirmed prostatic enlargement, measuring 11.4×8.5×9.8 (=522 gm). Pelvic MRI showed large intravesical median lobe. Uroflowmetry showed a maximum flow rate of 9 ml/sec with obstructive flow pattern. Serum PSA was 20.2 ng/ml, however multiple trucut prostatic biopsies showed benign hyperplasia.[10]

CONCLUSION

The case report presented here is the first reported case of GPH from Aligarh. There are different treatment options for prostatic hyperplasia like transurethral resection of prostate (TURP), transurethral incision of the prostate (TUIP), laser vaporization or enucleation techniques open prostatectomy. TURP, TUIP are surgical options reserved for small and medium-sized prostates while Open prostatectomy is best for large prostates.

ACKNOWLEDGEMENTS

Author would like to thanks to the entire surgical team of A. K. Tibbiya college, AMU, Aligarh.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Verhamme K, Dieleman JP, Bleumink GS, Van Der Lei J, Sturkenboom MC, Artibani W, et al. Incidence and Prevalence of Lower Urinary Tract Symptoms Suggestive of Benign Prostatic Hyperplasia in Primary Care-the Triumph Project". Eur J Urol. 2002;42(4):323-8.
2. Berry SJ, Coffey DS, Walsh PC, Ewing LL. The development of human benign prostatic hyperplasia with age. J Urol. 1984;132:474-9.
3. Kawamura S, Takata K, Yoshida I, Matsui S. A case of giant prostatic hypertrophy. Hinyokika Kiyo. 1984;30:1861-6.
4. Fishman JR, Merrill DC. A case of giant prostatic hyperplasia. Urology. 1993;42:336-7.
5. Ockerblad NF. Giant prostate; the largest recorded. J Urol. 1946;56:81.
6. Wang L, Davis P, McMillan K. A case of giant prostatic hyperplasia. Asian J Urol. 2016;3:53-5.
7. Huang K, He L. Giant prostatic hyperplasia: a case report and review of the literature. Zhonghua Nan Ke Xue. 2011;17(2):151-5.
8. Wroclawski ML, Carneiro A, Tristão RA, Sakuramoto PK, Youssef JDM, Neto ACL et al. Giant prostatic hyperplasia: report of a previously asymptomatic man presenting with gross hematuria and hypovolemic shock. Einstein (Sao Paulo). 2015;13(3):420-22.
9. Ketabchi AA. Giant Benign Prostatic Hyperplasia with Large Bladder Stones. Int J Med Medical Sci. 2012;2(5);101-2.
10. Sood R, Jain V, Chauhan D. Giant prostatic hyperplasia. J Postgrad Med. 2006;52:232-3.

Cite this article as: Hilal R, Nafees F, Aziz I, Usmani S. Giant prostatic hyperplasia: a case report from Aligarh. Int J Res Med Sci 2023;11:390-2.