

Giant prostatic hyperplasia: Case report and literature review

Dev prostat hiperplazisi: Olgu sunumu ve literatürün gözden geçirilmesi

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Geliş Tarihi / Received: 24.05.2011, Kabul Tarihi / Accepted: 05.08.2011

ABSTRACT

The giant hyperplasia of the prostate is an extremely rare pathology of prostate gland. We report the uncomplicated removal of the largest ever prostate from Turkey and the 3rd case exceeding 500 grams in the world literature.

Key words: Prostate, benign, hyperplasia

ÖZET

Dev benign prostat hiperplazisi prostatın oldukça nadir görülen bir patolojisidir. Literatürde sunulan Türkiye'de en büyük, dünyada ise 3. büyük 500 gram üzerindeki prostatın komplikasyonsuz çıkartılmasını sunduk.

Anahtar kelimeler: Prostat, selim, hiperplazi

INTRODUCTION

Benign prostatic hyperplasia (BPH) often produces chronic and progressive lower urinary tract symptoms or complications, leading many men to seek treatment. Massive enlargement of prostate is defined as Giant Prostatic Hyperplasia (GPH).¹ GPH is extremely rare; only 14 cases have been described exceeding 500 grams in the literature till 2010. Here, we report a case with a 734 grams prostatic adenoma that was removed by suprapubic transvesical prostatectomy in a few pieces successfully.

CASE

A 75-year-old man presented with mild to moderate lower urinary tract symptoms (LUTS) of 10 years duration. The uroflowmetry results of the patient are; Qmax: 6,3 mL/sec, Qave: 3,2 mL/sec and volume: 190 mL. The post void residual (PVR) urine volume was found to be 170 mL in abdominal sonography. The routine laboratory findings were normal and rectal digital examination of the prostate was grossly enlarged. The total PSA levels were 14, 54 ng/ml. Abdominal ultrasound confirmed prostatic enlargement, measuring 12.8 x 11.5 x 10.2. Pelvic computer tomography photography of the giant prostate is shown in Figure 1. Suprapubic trans-

vesical prostatectomy was performed under spinal anesthesia and the large adenoma was enucleated completely in a few pieces. Blood loss was 200 cc and there were no operative complications. The removed specimen was measured to be weighed 734 g (Figure 2). Pathologic examination revealed the proliferation of prostatic glands. The foley catheter was removed at postoperative seventh day, and the patient was able to void without difficulty. The post-operative (1 month) results of the patient were found to be Qmax: 18,2 mL/sec, Qave: 9,7 mL/sec, volume: 320 mL, and PVR: 20 mL.



Figure 1. Pelvic computer tomography photography showed the giant prostate

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Figure 2. The removed prostatic tissue was measured to be weighed 734 g

DISCUSSION

Benign prostatic hyperplasia (BPH) is a common problem experienced by aging men that can lead to serious outcomes, including acute urinary retention. Giant benign prostatic hyperplasia is defined as a prostate weighing more than 500 g.² even though some authors use 200g.³ In Japanese literature, there were 33 cases that have been weighed more than 200 g.⁴ The management of symptomatic BPH that has failed conservative therapy is usually transurethral resection of the prostate (TURP). Although new minimally invasive techniques present as an alternative to TURP for small-size prostates, the only validated alternative for large prostates (greater than 75 grams) is the old classic open prostatectomy. Suprapubic prostatectomy is the enucleation of the hyperplastic prostatic adenoma through an extraperitoneal incision of the lower anterior bladder wall. This operation is ideally suited for patients who have a large median lobe protruding into the bladder, a concomitant, symptomatic bladder diverticulum or a large bladder calculus^{1,2,4}. To our knowledge, 14 cases of GPH have been described exceeding 500 grams to date and our case is the 3rd heaviest ever reported in the literature (Table 1). We used computer tomography to confirm the diagnosis of the patient but we think that GPH is only diagnosed with generally sonography and digital rectal examination will be enough for the diagnose of BPH. Although the PSA level of the patient was 14,54 ng/ml, the patient did not underwent prostate biopsy because we thought that increment in the PSA level may be due to the larger prostate gland

than usual. The surgical procedures that have been recommended previously to remove the giant prostates are simple suprapubic and retropubic prostatectomy. Also the procedure should employ both suprapubic and retropubic approaches. We performed simple suprapubic prostatectomy and the prostatic adenoma was removed in a few pieces successfully. Giant prostatic hyperplasia is a rare entity and the open surgery techniques appear to be the safest methods for treatment.

Table 1. Giant prostates that have been described exceeding 500 g in the literature

Author	Date	Weight (grams)
Medina Perez et al (5)	1997	2410
Ockerblad (2)	1946	820
Ucer et al	2010	734
Nelson (6)	1940	720
Gilbert (7)	1939	713
Wadstein (8)	1938	705
Lantzius-Beninga (9)	1966	705
Ashamalla and Ahmed (10)	1972	695
Thomson-Walker (11)	1920	680
Yılmaz et al (12)	2006	610
Bacon (13)	1949	602
Middleton (14)	1937	557
Kitagawa (15)	1980	535
Fishman and Merrill (1)	1993	526

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