

Prevalence of Benign Prostatic Hyperplasia (BPH) in Saudi Patients above 40 Years Old

Markhan Hammad Almarkhan, Abdullah Ismail Sawma, Fahad Saleh Alruwaili, Qusai Abdullah Alsaqabi, Mushari Aber Alonazi, Waleed Sultan Alruwaili, Nafea Hamoud Alanazi, Hind Jaza Alotaibi
Al-jouf University, Collage of Medicine

Corresponding author: Markhan Hammad Almarkhan, 0966558505953, E-mail: m.almrkhan@gmail.com

ABSTRACT

Background: Benign prostatic hyperplasia (BPH) is a common disorder amongst older men, and is accountable for significant disability. **Objective:** The aim of the study is to determine the prevalence of benign prostatic hyperplasia in urology department of Prince Mutaib hospital in Sakaka, Aljouf.

Methods: Via recoding, 345 patients attended the urology department. They were asked about their ages, if they are smokers and if they have chronic diseases.

Results: The total number of patients diagnosed as having benign prostatic hyperplasia (BPH) was 82. This showed a prevalence rate of 23%. The age distribution of the patients was found to be above 60 years old. While regarding the symptoms: 23 (28%) of the patients showed mild BPH, 39 (48%) with moderate BPH, and 20 (24%) with severe BPH. **Conclusion and recommendation:** BPH seemed to be a problem of elderly patients, as within the studied patients, those with BPH were above 60 years. Chronic diseases such as diabetes mellitus, hypertension may be acting as risk factors for BPH. Further studies are recommended to study the prevalence of prostatic carcinoma in elderly patients.

Keywords: Benign prostatic hyperplasia, Diagnosed, Chronic diseases.

INTRODUCTION

The prostate is a gland that produces the fluid that conveys sperm throughout the ejaculation. The prostate gland surroundings the urethra, the tube over which urine moves out of the body. On the other hand, an enlarged prostate attempts that the gland has grown bigger. Moreover, prostate enlargement infects almost all men as they get older. As the gland produces, it can press on the urethra leading to difficulty in urination^[1].

It can also complicate as **sudden inability to urinate (urinary retention), urinary tract infections (UTIs), bladder stones, bladder damage and kidney damage**^[2].

Although benign prostatic hyperplasia (BPH) is a common problem among older men, and is responsible for considerable disability to urination, however, it is an infrequent cause of death. According to the World Health Organization database, the mortality rates for most developed countries in the 1980s were 0.5 to 1.5/100,000^[3]. The most common type of prostatic disorders in patients above 40 years old is benign prostatic hyperplasia, by the age of 60 more than half of men have BPH. However by the age of 85 year old, 90% of men will be bothered by their symptoms of BPH^[4].

In Sakaka, Al-jouf there were no researches that studied this topic yet, and this is the first reason to choose this topic benign prostatic hyperplasia (BPH) and the second reason is the importance of prostatic symptoms among patients above 40 years old which is common and more likely by the age of 60.

Objective:

The study aimed to assess the prevalence of BPH among patients of ages above 40 years presenting with prostatic symptoms visiting the urology unit of Prince Mutaib hospital in Sakaka.

MATERIALS AND METHODS

Subjects: All patients recorded at the urology department from January 2015 to March 2015. They have been assessed to check if they were suffering from Benign Prostatic Hyperplasia.

Design: Hospital-based retrospective study.

Data Collection: Patients attended the urology department and diagnosed as BPH with information as regard the patient's age, smoking, and chronic diseases.

The prevalence of BPH was assessed by using of International Prostatic Symptom Score (IPSS), the total score ranges from 0 to 35, with a higher

score indicated a higher level of symptoms. The total IPSS is then categorized into three levels of severity:

Minor (0-7), moderate (8-19), or severe (20-35). BPH is considered when the IPSS is over 7.

Analysis: Data were analyzed using the SPSS Version-21 for frequencies and appropriate tests.

Ethical consideration

This study has received ethical approval from Al-jouf University, Collage of Medicine.

RESULTS

With a total of 345 visits to urology department in the study months, the total number of diagnosed patients with benign prostatic hyperplasia (BPH) was 177.

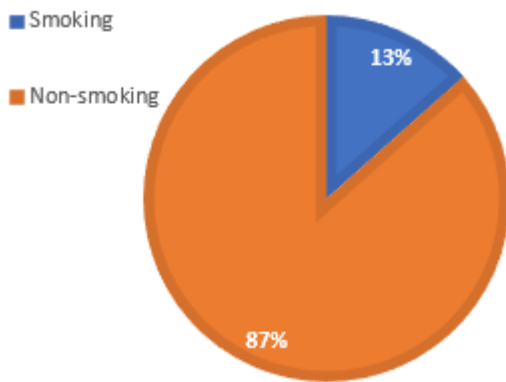
This showed a prevalence rate of 23%.

the age distribution of BPH patients was found to be above 60-year-old.

Smoker VS Non-smokers

Out of those diagnosed with BPH, 11 of them were smokers giving a rate of 13%.

Figure 1 : Percentage of smokers Vs Non-Smokers in regard to BPH.



Chronic Diseases

As regard chronic diseases, 49 (59.8%) of the patients were diabetic, 64 (80%) were hypertensive, and 64 (80%) of them had other diseases.

Table 1. Chronic Diseases among BPH

Chronic Diseases	Percentages
Diabetes	59.8%
Hypertension	80%
Other Diseases	80%

Severity of BPH

IPSS classification regarding the symptoms showed that 23 (28%) of the patients show mild BPH, 39 (48%) with moderate BPH, and 20 (24%) with severe BPH.

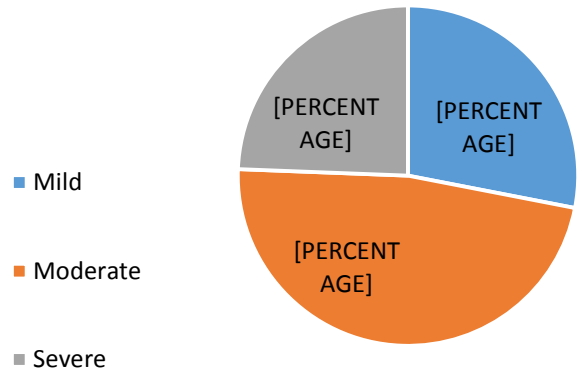


Figure 2: Showed the severity of BPH.

DISCUSSION

The present study is conducted to determine the prevalence of BPH among the patients in urology department of Prince Mutaib hospital.

The prevalence in the present study showed to be 23% while James’s study indicated 19% then increased to aged 60 to 70 to be ($P < 0.001$ for trend).⁽⁷⁾ Our result consists with a hospital based studies in Port Harcourt, [Nigeria] showing 25.3% prevalence rate^[5]. Comparing the severity with Port Harcourt’s study in Nigeria, it showed the following:

	Port Harcourt	Sakaka
Mild (%)	27.8	28
Moderate (%)	50.5	48
Severe (%)	21.7	24

Equally important, the higher rates of BPE were observed where no clinical beginning were functional before measuring prostate size, growing to 913 per 1000 (95% CI 798–1000) at age 70–79 years.⁽⁷⁾ Other study reported that mild symptoms in 55 men (3.6%); moderate symptoms in 591 (38.6%) and severe symptoms in 885 (57.8%)⁽⁶⁾.

Other studies in UK showed a similar prevalence percentages (25.3%) and ion Spain (24.94%). Furthermore, most of the patients who had BPH are suffering from a kind of chronic

diseases, most commonly diabetes, hypertension and other diseases ⁽¹⁾. IPSS classification is based on the severity of the symptoms (nocturia, urgency, incomplete emptying, frequency of urination, intermittency, weak stream and streaming) and had three categories mild, moderate and severe. In this study, the majority of the patients were considered in moderate BPH and severe as well. This indicates that around 70% of the patients are suffering.

Other study stated that men with moderate symptoms of benign prostatic hyperplasia is related to which stage the urinary difficulties bother them caused by many reasons such as health care costs ⁽⁶⁾.

On the other hand, chronic diseases play an importance role; where 49 (59.8%) of the patients were diabetic, 64 (80%) were hypertensive, and 64 (80%) of them had other diseases.

CONCLUSION

BPH seemed to be a problem of elderly patients, as within the studied patients, those with BPH were above 60 years. Chronic diseases such as diabetes mellitus, hypertension may be risk factors for BPH. The majority of the patients had moderately severe BPH. Further studies are recommended to study the

prevalence of prostatic carcinoma in elderly patients.

REFERENCES

1. **Cunningham G *et al.* (2014):** Epidemiology and pathogenesis of benign prostatic hyperplasia, <http://www.uptodate.com/home>
2. **Roehrborn G (2011):** Male lower urinary tract symptoms (LUTS) and benign prostatic hyperplasia (BPH). *Med Clin North Am.*, 95(1): 87-100
3. **Rubenstein J, and Mcvary T (2008):** Transurethral Microwave Thermotherapy of the Prostate (TUMT). *eMedicine.*, <http://cutt.us/PX3n0>
4. **Verhamme C, Dieleman P, and Bluemink G *et al.* (2002):** Incidence and prevalence of lower urinary tract symptoms suggestive of benign prostatic hyperplasia in primary care. *Eur Urol.*, 42(4): 323-328.
5. **La Vecchia C, Levi F and Lucchini F (1995):** Mortality from benign prostatic hyperplasia. *J Epidemiol Community Health*, 49:379.
6. **Simpson RJ, Fisher, and Lee J *et al.* (1996):** Benign prostatic hyperplasia in an unselected, community based population. *Br J Urology*, 77: 186-191.
7. **James B, Meigs A, Beth Mohr B, Michael J, Barry A, Mary A, John B, and McKinlay B (2001):** Risk factors for clinical benign prostatic hyperplasia in a community-based population of healthy aging men. *Journal of Clinical Epidemiology*, 54: 935-944.