



*International Journal of Current Research
and Academic Review*

ISSN: 2347-3215 Volume 2 Number 6 (June-2014) pp. 155-161

www.ijcrar.com



**Differential Survey of Observation during Cystoscopy in Patients with first
Diagnosis of BPH, from 2005 to 2007 at Military Hospital – 501 in Tehran, Iran**

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KEYWORDS

Cystoscopy,
Obstructing
and Motivating
Symptoms,
AUA,
BPH

A B S T R A C T

BPH symptoms are classified into two groups: Obstructing and Motivating. Obstructing symptoms include pause during urination, decrease in force and caliber of the urine, sensation of insufficient emptying of the bladder, double emptying, excesses effort for urination (to urine) and dribbling after end of bladder emptying. Motivating symptom include urine urgency, urine frequency and nocturia. The best and the only means to evaluate patients with BPH. In this study, we would compare the findings during cystoscopy in patient with BPH, being candidate for cystoscopy, with the first diagnosis. Then we would determine whether most of them have evidences of BPH or there are cases with BPH which we couldn't diagnose them without cystoscopy. In this study done in diagnostic questionnaire evaluation, 95 of the men candidate for cystoscopy, had obstructing and motivating symptoms, were undergone cystoscopy – fully consented – it has been done at Military Hospital – 501, from 2005 to 2007. The age average of persons participating in this study is 66.6105 with standard deviation of 8.0124. Most of the persons are at the group number 1 (age: 60 to 70). The score severity of this group, comparing with the other two ones, is higher (P-value = 0.492).%14.7 of these persons were illiterate (non-educated), %26.3 of them studied only till the end of guidance school, 34.7 had diploma, 24.2 had B.A. There was a meaningful relation comparing with their questionnaire score (P-value = 0.286). In this study, we concluded that there is a relation between clinical doubt and diagnosis derived from AUA questionnaire with final diagnosis by cystoscopy. Generally, we can not completely trust the AUA questionnaire to have decisive diagnosis about BPH. It requires doing some actions to have more decisive diagnosis about BPH.

Introduction

BPH (benign prostate hyperplasia) is the most common benign tumors among the male and its incidence is age related.

Prevalence of BPH is increasing histologically in about %20 of males with 41 – diagnosis years old to %50 of males

with 51 – questionnaire years old and more than %90 of males over incidence years old. Although clinical evidences of this disease occur by less prevalence, the obstructing symptoms of the prostate depend on age. Almost %25 of males, at 55 years-old, would inform the obstructing symptoms during urination. %50 of the males, at 75 years-old, would complain about decrease of urine force and urinary flow (1). BPH symptoms are classified into two groups: Obstructing and Motivating. Obstructing symptoms include pause during urination, decrease in force and caliber of the urine, sensation of insufficient emptying of the bladder, double emptying, excesses effort for urination (to urine) and dribbling after end of bladder emptying. Motivating symptom include urine urgency, urine frequency and nacturia. BPH symptoms can be because of its obstructing and motivating nature. At present, besides disease symptoms effect on patient quality of life, one of the criteria for BPH treatment is AUA-Scores. This includes 7 questions each has score of 0 to 5.

The maximum score is 35. For example, for scores below 7, it is recommended to care about the patient (in case of no complication). We call the symptoms due to BPH “Prostatism” but the term L.U.T.S (Lower Urinary Tract Symptoms) is the better one. Questionnaire of AUA about the patient symptoms may be the best and the only means to evaluate patients with BPH; all the patients before starting the treatment would fill this questionnaire. In this survey, it is focus on seven special points i.e. it asks the patients these points to determine severity of their obstructing and motivating symptoms by scores of 0 to 50. So, this categorization can have remarking of 0 to 35. The sum of the above scores is called I.P.S.S (AUA – Scores).

Mild Symptoms	0 - 7	I.P.S.S
Moderate Symptoms	8 - 19	I.P.S.S
Severe Symptoms	20 – 35	I.P.S.S

According to high prevalence of BPH, e.g. 14 million persons in USA, there are many patients with symptoms of prostate hyperplasia in Asia and Australia more than in USA and also about 30 million around the world (4). We needed a quick easy diagnostic method; AUA after various surveys in 1999, made the said questionnaire and scoring the patients and pursuing it to solve that problem. From now on, many articles and surveys have been published and recorded to confirm its validity and frequency. Most of them confirmed this questionnaire as an appropriate method for diagnosis and treatment (5).

In our country, Iran, there is no comprehensive and referable study about BPH, although it has a high prevalence and made lots of problems in view of welfare and financial issues (6). In this study, the old ones above diagnosis years-old who came to Urology Clinic, would be undergone treatment after asking about their history, physical examination and filling out the questionnaire of AUA; the treatment would be done according to the positive points in their history and physical examination and IPSS score (7,8).

As these patients are old and have some problems in saying their history and filling out the AUA questionnaire, there maybe some diversity in IPSS values; it can make some problems during treatment (9). On the other hand, as other urinary symptoms related to BPH maybe occurred because of other urinary system diseases such as stricture, prostatitis, cystitis, stone and

cancer, so IPSS shouldn't be used as the only criterion to diagnose BPH (3,10).

According to the mentioned materials, we decided to compare the findings during cystoscopy (11,3) with the first diagnosis to analyze whether most of them have evidences of BPH or there are cases with BPH which we couldn't diagnose them without cystoscopy. If there were harmony between evidences during cystoscopy with the first diagnosis _BPH_ we can conclude that diagnostic value of AUA questionnaire would be valid in our country, too (Iran). In case of finding against the first diagnosis, it would be required to do some actions to have definite diagnosis of BPH.

Materials and Methods

This study is a diagnostic questionnaire evaluation one. In this study, 95 of the men candidate for cystoscopy, had obstructing and motivating symptoms, they were undergone cystoscopy – fully consented – and the physician would fill out the questionnaire by the patient history. After doing these, the appointment for cystoscopy would be written down and the patient, with the tests related and written in the questionnaire, would come for

cystoscopy. After sedation by Urologist, cystoscopy would be done in the surgery and the results would be written on a special sheet. During the study, the candidates can stop the survey if they couldn't continue. It is necessary to say that the golden standard in this study is cystoscopy and the questionnaire is survived on the basis of this standard. The data were analyzed by SPSS microsoft, 11.5 edition. The Pearson Chi-square was used to compare the data and meaningful values of $p < 0.05$ were considered. In this study, all moralistic are observed and information related to the candidates are kept beside the physician.

Results

The age average of persons participating in this study is 66.6105 with standard deviation of 8.0124. The age distribution is classified in 3 groups as follows that most of the persons are at the group number 1 (age: 60 to 70). The score severity of this group, comparing with the other two ones, is higher (P value = 0.492). In comparing the age distribution with evidences during cystoscopy, there were more cases of BPH and other diagnoses in the first group (P-value = 0.265).

Table.1 Age Distribution Frequency
AGE AE

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 00	25	26.3	26.3	26.3
1. 00	42	44.2	44.2	70.5
2. 00	28	29.5	29.5	100.0
Total	95	100.0	100.0	

00: 50 - 60 years old

1.00: 60 – 70 years old

2.00: > 70 years old

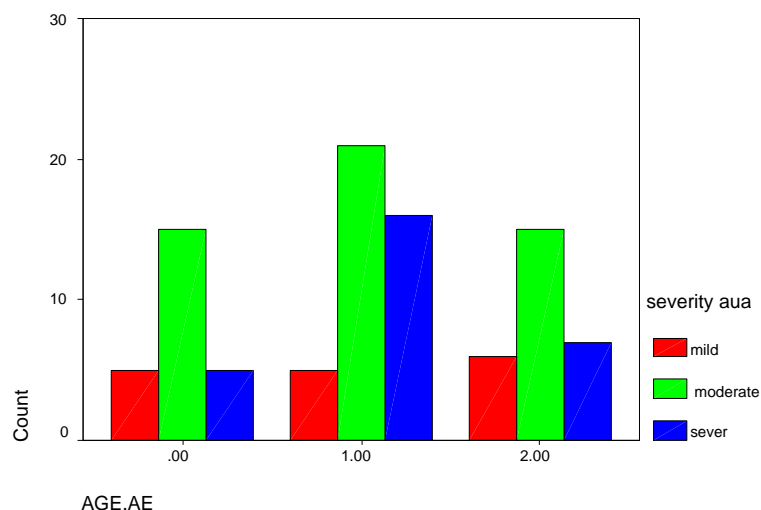


Figure.1 Comparing Age Distribution with AUA Severity

%14.7 of these persons were illiterate (non-educated), %26.3 of them studied only till the end of guidance school, 34.7 had diploma, 24.2 had B.A. There was a meaningful relation comparing with their questionnaire score (P-value = 0.286)

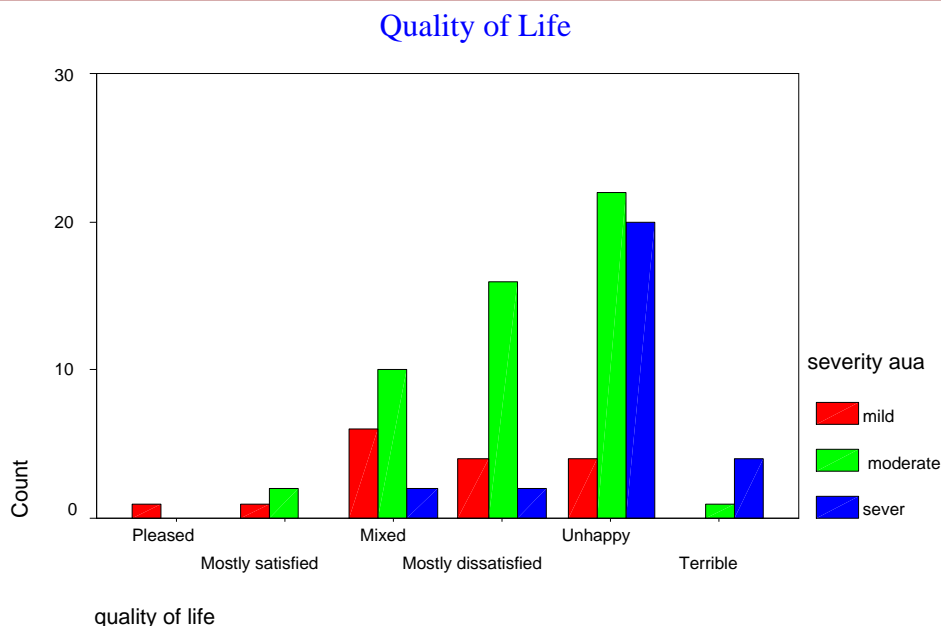
Table.2 Education Distribution Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non-educated	14	14.7	14.7	14.7
cycle	25	26.3	26.3	41.1
diploma	33	34.7	34.7	75.8
license	23	24.2	24.2	100.0
Total	95	100.0	100.0	

Frequency distribution of answer to the question about Quality of Life is often “Un Happy” (%48.4); there was a meaningful relation comparing with questionnaire severity i.e. the more worse the Quality of Life, the high score of symptoms severity. There was no meaningful relation in comparing between being worst of the Life Quality with age increase but in this study, the answer of “Unhappy” is often for persons older than 60 years-old.

Table.3 Frequency of Quality of Life Quality of Life

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Pleased	1	1.1	1.1	1.1
Mostly Satisfied	3	3.2	3.2	4.2
Mixed	18	18.9	18.9	23.2
Mostly Dissatisfied	22	23.2	23.2	46.3
Unhappy	46	48.4	48.4	94.7
Terrible	5	5.3	5.3	100.0
Total	95	100.0	100.0	



P- Value = 0.002

Figure.2 Comparing Quality of Life with Questionnaire Severity

The mean of AUA scores was 15.2737; of this, %16.8 was mild, %53.7 was moderate and %29.5 was severe. (Table 4, AUA scores based on symptoms severity).

The results of the final diagnosis were as follows: 75.8 had BPH, %6.3 had stricture, %5.3 had BPH and stricture, %11.6 had BPH and bladder trabeculation and %1.1 had BPH and tumor. The difference between diagnosis of the questionnaire and cystoscopy was not meaningful (P-value > 0.903).

Table.4 AUA Scores based on Symptoms Severity
Severity AUA

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid mild	16	16.8	16.8	16.8
Moderate	51	53.7	53.7	70.5
Severe	28	29.5	29.5	100.0
Total	95	100.0	100.0	

Mild: 0 – 7; Moderate: 8 – 19; Severe: 20 – 35

Table.5 Evidences during CystoscopyCystoscopy Results

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid BPH	72	75.8	75.8	75.8
Stricture	6	6.3	6.3	82.1
BPH and Stricture	5	5.3	5.3	87.4
BPH and Bladder Trabeculaion	11	11.6	11.6	98.9
BPH and Tumor	1	1.1	1.1	100.0
Total	95	100.0	100.0	

Table.6 AUA Severity with Cystoscopy Results Severity AUA
Cystoscopy Results Crosstabulation

Count	Cystoscopy Results					Total
	BPH	Stricture	BPH and Stricture	BPH and Unstable Bladder	BPH and Tumor	
Severity Mild	13	1		2		16
AUA Moderate	36	4	4	6	1	51
Sever	23	1	1	3		28
Total	72	6	5	11	1	95

P value = 0.903; Mild: 0 – 7; Moderate: 8 – 19; Severe: 20 – 35

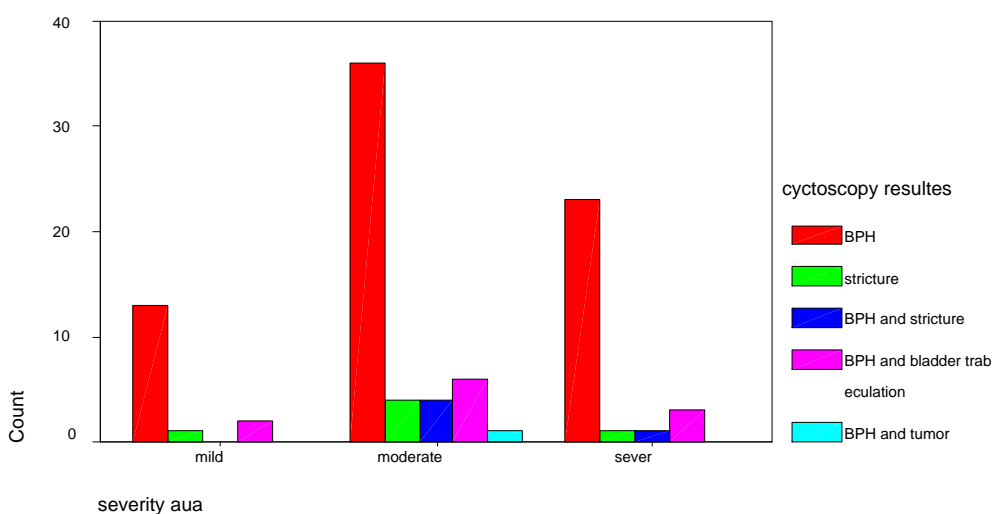


Figure.3 AUA Strongly with the results of cystoscopy

As it is seen from the results, there is a difference between the first diagnosis with the AUA questionnaire and the final diagnosis with cystoscopy. Although this difference is mostly negligible (%24.2) (p value= 0.903) but it means that IPSS shouldn't be used as the only criterion to diagnose BPH because urinary symptoms would be occurred by other disease of urinary system; and there is no coordination between IPSS, symptoms severity and obstruction grade. IPSS would represent a primary assessment of patient condition so we can decide about symptoms progress, recovery or treatment (3). In other articles, there is a dissension between the two theories as follows:

Theory No.1 = AUA questionnaire is useful and reliable to estimate BPH symptoms.
Theory No.2 = We can not trust AUA questionnaire to diagnose BPH because of overlapping clinical symptoms of BPH with other disease such as stone, obstruction, infection, etc. and segregation diagnosis.

In this study, there is a meaningful relation between sadness severity related to the question about Quality of Life comparing with questionnaire severity; the more badly the Quality of Life, the high score of symptoms severity but being worst of the answer to Quality of Life isn't affected by age increase (13). In a survey done recently

in Iran, the frequency of pathologic data in routine cystoscopy was analyzed before open prostatectomy. It showed no new finding in routine cystoscopy (12).

Conclusion

Another conclusion of this study is that there is a relation between clinical doubt and diagnosis derived from AUA questionnaire with final diagnosis by cystoscopy. Mostly, there is no new finding in cystoscopy (%75.8 – P-value = 0.903). Generally speaking, we can not completely trust the AUA questionnaire to have more decisive diagnosis about BPH. It requires doing some actions to have more decisive diagnosis about BPH.

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