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Gülname Findik Güvendi
Tuğba Toyran
Murat Bağcıoğlu
Kafkas University, Kars-Turkey
gulnamefindik@hotmail.com; tugbaolcan@hotmail.com;
dr.muratbagcioglu@hotmail.com
Özlem Kılıç
Doç. Dr. İsmail Karakuyu Simav Devlet Hastanesi, ozlembirge@gmail.com, Kütahya-Turkey
Yasemen Adalı
Kafkas University, yasemenadali@hotmail.com, Kars-Turkey

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ORCID ID	0000-0001-9370-4880	0000-0001-9135-0265
	0000-0003-4927-9164	0000-0001-7900-4263
	0000-0002-8004-7364	
CORRESPONDING AUTHOR	Yasemen Adalı	

THE INCIDENCE AND SIGNIFICANCE OF INCIDENTAL PROSTATE CARCINOMA IN TRANSURETHRAL RESECTION (TUR-P) MATERIALS BETWEEN 2014 AND 2016 AT OUR CENTER

ABSTRACT

Incidence and significance of incidental prostate carcinoma in transurethral resection (TUR-P) materials between 2014 and 2016 at our center. Like all organs, prostate has benign and malign diseases. Among benign diseases, benign prostatic hyperplasia (BPH) and among malignancies adenocarcinoma are the most common ones. One of the methods that is used to treat BPH is transurethral resection (TUR-P). In our study, we investigated incidental tumor rates observed in patients that have TUR-P due to BPH. We included 120 patients who underwent TUR-P and whose operation materials were examined in pathology department between 2014-2016 in our center. Benign diseases were noted in 117 (97.5%) of 120 patients, whereas malignant tumors were detected in 3 (2.5%) cases. In TUR-P operations performed to relieve symptoms in BPH, adenocarcinoma is reported in the literature at rates ranging from 4% to 15%. We suggest that patients with symptoms of prostatism should be carefully investigated, detailed histopathologic evaluation should be done in terms of incidental tumors and clinical pathology communication should be at maximum level.

Keywords: Prostate, Carcinoma, Adenocarcinoma, Incidental, TUR-P

1. INTRODUCTION

The increase in life span due to various reasons, especially economic developments, has led to an increase in the incidence of prostate diseases as well as in many diseases. When we distinguish prostate diseases as benign and malignant with the roughest classification, benign prostatic hyperplasia (BPH) is most common in benign diseases and adenocarcinomas in malign diseases due to glandular nature of prostate. Another disease frequently encountered in benign diseases is prostatitis, which is seen at an early age. BPH is an important health problem that begins to increase in frequency from age 40, and its symptoms negatively affect the quality of life.

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The prevalence of BPH, which is reported to be 50% at age 50, increases to 80% at age 70 [1]. Aging is an important etiological factor, as can be understood from this. Another important factor is the presence of hormone active testis tissue [2]. Clinically, patients with BPH are confronted by the inability to completely void the urine, still feel urine, frequent urination, prolonged urination, and incontinent urination which are referred as the symptoms of prostatism, Urine retention, bladder stones, pyelonephritis, and even renal failure, which may develop secondary to obstruction when BPH is untreated, makes the existing life quality of the patients even poorer. Treatment methods include medical treatments and surgical treatments. Transurethral resection (TUR-P), which is one of the surgical treatment choices, is an effective method in terms of both eliminating obstruction and allowing histopathologic examination, and is widely used. Adenocarcinoma of the prostate is a neoplasm, which is an important factor in the mortality and morbidity of older males and in which early recognition is important as many malignancies. These tumors are histopathologically evaluated with the Gleason grading system and the material used in the examination is tru-cut biopsies taken on transrectal ultrasound guidance (TRUS). The planning of the treatment of the patients is based on the biopsy result. However, the only biopsy material that the tumors are detected is not TRUS biopsies. Incidentally, adenocarcinoma is also detected in TUR-P biopsies, which does not have tumor pre-diagnosis. In our study, we aimed to determine the incidence of incidental adenocarcinoma in TUR-P materials in our center, which have been reported in various studies in the literature.

2. RESEARCH SIGNIFICANCE

Worldwide widespread prostate disease lowers the quality of life of the person and, if untreated, can lead to more serious health problems in later stages and is an important expense in terms of health expenditure. Adenocarcinoma from prostate diseases continues to be a serious health problem with the reason that it is in second place in male deaths due to cancer. When this tumor is incidentally detected in TUR-P materials it is usually low-grade, which is further important in terms of patient prognosis and patient management.

3. MATERIALS AND METHODS

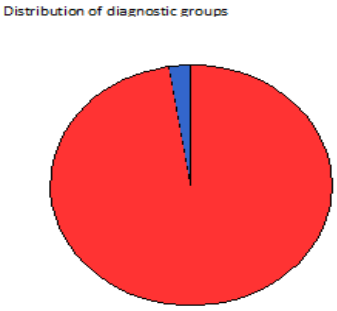
We included 120 patients who underwent TUR-P due to BPH symptoms in our center's urology clinic, and whose operation materials reached the pathology department between 2014 and 2016. The diagnoses of the cases were examined separately for all diseases and grouped as benign/malignant for all years and for each year separately. Frequency analyzes of the results were performed with SPSS package program 20.0.

4. RESULTS AND DISCUSSION

The age of the patients included in the study ranged from 47 to 104, with a mean of 70.68±.438 (median 71). The histopathological findings of the cases are given in table 1. The distribution of histopathologic diagnoses according to years is shown in table 2. The results obtained when the cases are grouped as malignant and benign are shown in graphic 1. The distribution of these groupings according to years is given in table 3.

Table 1. Distribution of cases according to diagnosis (BPH-benign prostate hyperplasia, CNSP- chronic nonspecific prostatitis, ACNSP- active chronic nonspecific prostatitis, MSF- malignant suspicious focus)

Diagnosis	Number (N)	Peercent (%)
Stromal Tissues	2	1.7
BPH	16	13.3
BPH and CNSP	56	46.7
BPH and ACNSP	31	25.6
MSF and CNSP	4	3.3
MSF and ACNSP	4	3.3
Granulomatous Prostatitis	2	1.7
Benign Neoplasia	2	1.7
Adenocarcinoma	3	2.5
Total	120	100



Graphic 1. Distribution of benign and malignant diagnostic groups (red: benign, blue: malignant)

Table 2. Distribution of diagnoses of cases by years (BPH-benign prostate hyperplasia, CNSP- chronic nonspecific prostatitis, ACNSP- active chronic nonspecific prostatitis, MSF- malignant suspicious focus)

Diagnosis	2014 N/Percent	2015 N/Percent	2016 N/Percent
Stromal Tissues	1 /%1.7	1/%2.3	0/%0
BPH	11/%19.0	4/%9.1	1/%5.6
BPH and CNSP	25/%43.1	24/%54.5	7/%38.9
BPH and ACNSP	12/%20.7	12/%27.3	7/%38.9
MSF and CNSP	1/%1.7	2/%4.5	1/%5.6
MSF and ACNSP	2/%3.4	1/%2.3	1/%5.6
Granulomatous Prostatitis	2/%3.4	0/%0	0/%0
Benign Neoplasia	1/%1.7	0/%0	1/%5.6
Adenocarcinoma	3/%5.2	0/%0	0/%0
Total	58/%100	44/%100	18/%100

Table 3. Distribution of diagnostic groups of cases according to years

Diagnosis Group	2014- N/Percent	2015- N/Percent	2016- N/Percent
Benign	55/%94.8	44/%100	18/%100
Malignant	3/%5.2	0/%0	0/%0
Total	58/%100	44/%100	18/%100
Diagnosis Group	2014- N/Percent	2015- N/Percent	2016- N/Percent

Incidental prostate carcinoma refers to adenocarcinoma detected in prostate biopsies without malignancy pre-diagnosis time of diagnosis, so their prognosis is quite good [3]. Therefore, the

detection of these tumors is very important. The incidence of incidental prostate carcinoma detection has been reported to be 4- 15% [4 and 7]. We found a tumor rate of 2.5% in our study. When we look at the distribution according to years, we observe that incidental tumors are seen in the first year cases (5.2%-2014 years) and not seen in other years included in the study. Given that detailed reviews prior to surgery reduce the rate of tumor detection, it seems possible that the proportion of tumors over the years will decline in our clinicians' experience and clinical pathology cooperation. In our country, especially in TUR-P operations performed for BPH, patients are not expected to have a tumor and therefore it is not uncommon for them not to get pathology results or to go to the clinical control. In our study, we emphasize that the identification and management of these tumors, which can be caught and intervened at an early stage without disturbing the quality of life of the patient and causing more serious socioeconomic consequences, is important.

5. CONCLUSIONS AND RECOMMENDATIONS

- Prostate carcinoma, a common cause of mortality, is confronted not only in TRUS biopsy materials, but also in TUR-P materials performed for BPH treatment.
- In our center, the incidence of incidental carcinoma in TUR-P materials is 2.5%.
- Clinician pathologist cooperation is important in the clinical management of these incidental prostate tumors, which are caught mostly in early stages.

NOTICE

This study is presented at 05-08 September 2017, 2nd International Science Symposium (ISS2017) in Tbilisi-Georgia.

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