



# Evaluation of Medical Malpractice in Urology Cases Resulting in Death

## Ölümlle Sonuçlanmış Üroloji Vakalarında Tıbbi Uygulama Hatalarının Değerlendirilmesi

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### Abstract

**Aim:** This study aimed to present 96 cases evaluated by the 1st Specialization Committee of The Council of Forensic Medicine, which included medical malpractice claims about urologists resulting in death between 2010 and 2015 and to increase the awareness of urologists about medical malpractice claims.

**Material and Method:** The reports prepared by the 1st Specialization Committee of The Council of Forensic Medicine between 2010–2015 were reviewed retrospectively. All of the cases treated in Urology clinics, alleged medical malpractice, and resulted in death, participated in the study.

**Results:** In this study, 96 cases were included. It was reported that there was medical malpractice in 16 (16.7%) cases. Seventy-six of the patients (79.2%) were female; the most common age range was  $\geq 60$  years (n:46 47.9%); the mean age was  $54,90 \pm 19,59$  years. Seventy-three (76%) cases were followed up under elective conditions. Complications developed in 20 (20.8%) of the cases during their treatment course. Surgical treatment was applied in 68 (70.8%) patients. Twenty (20.8%) cases were diagnosed with urinary system stone disease and 16 (16.7%) cases with benign prostatic hyperplasia. The committee attributed malpractice to the doctors most frequently due to lack of treatment (n:6, 37.5%).

**Conclusion:** We think that a comprehensive review of the cases with medical malpractice claims will contribute to a better understanding of these cases, the improvement of the medical service provided, and public health.

**Keywords:** Medical malpractice, urology, forensic medicine

### Öz

**Amaç:** Çalışmamızda Üroloji hekimleri hakkında 2010-2015 yılları arasında ölümlle sonuçlanan tıbbi kötü uygulama iddiası içeren ve Adli Tıp Kurumu (ATK) 1. İhtisas Kurulunca değerlendirilen 96 olgunun sunulması ve tıbbi kötü uygulama iddiaları ile ilgili üroloji hekimlerinin farkındalığının artırılması amaçlanmıştır.

**Gereç ve Yöntem:** Adli Tıp Kurumu 1. İhtisas Kurulunca 2010-2015 yılları arasında düzenlenen raporlar retrospektif olarak incelenmiş ve Üroloji kliniklerinde tedavi gören, tıbbi uygulama hatası iddiası bulunan ve ölümlle sonuçlanan olguların tamamı çalışmaya dahil edilmiştir.

**Bulgular:** Çalışmaya 96 olgu dahil edilmiştir. Olguların 16'sında (%16,7) tıbbi kötü uygulama olduğu, 80'inde (%83,3) olmadığı yönünde rapor düzenlenmiştir. Olguların 76'sının (%79,2) kadın, en sık yaş aralığının 60 yaş ve üzeri (n:46 %47,9); ortalama yaşın  $54,90 \pm 19,59$  olduğu tespit edilmiştir. Yetmiş üç (%76) olgu elektif şartlarda takip edilmiştir. Olguların 20'sinde (%20,8) bir komplikasyon gelişmiştir. Olguların 68'inde (%70,8) cerrahi tedavi uygulanmıştır. Yirmi (%20,8) olgu üriner sistem taş hastalığı ve 16 (%16,7) olgu benign prostat hiperplazisi tanısı almıştır. Kurul tarafından en sık tedavi eksikliği (n:6, %37,5) nedeniyle doktora kusur atfedilmiştir.

**Sonuç:** Tıbbi uygulama hatası iddiası bulunan olguların kapsamlı incelemesinin bu olguların daha iyi anlaşılmasına, sunulan tıbbi hizmetin ve toplum sağlığının iyileşmesine katkıda bulunacağını düşünmekteyiz.

**Anahtar Kelimeler:** Tıbbi uygulama hatası, üroloji, adli tıp



## INTRODUCTION

There is a dramatic increase in medical malpractice claims in our country and worldwide.<sup>[1-3]</sup> The expansion of medical malpractice litigations directly affects physicians and the health care they provide. Physicians are turning to defensive (recessive) medicine practices. Defensive medicine may manifest itself in unnecessary tests and imaging techniques, and consultations at every possible stage. Physicians refuse difficult cases that require complex procedures and patients with comorbidities.<sup>[3-6]</sup> This makes it difficult for the patient to access health services and increases public health expenditures.<sup>[2]</sup> The Urology departments ranked 12<sup>th</sup> in China, 10<sup>th</sup> in Spain, and 8<sup>th</sup> in the United States in medical malpractice claim frequency.<sup>[7-9]</sup> Urology ranked 8th among the surgical departments sued in Turkey.<sup>[10]</sup> Medicolegal risks also affect future physicians. Studies have shown that medical students decide on low-risk specialties due to medical malpractice lawsuits.<sup>[11,12]</sup> Urology departments and urologists make no exception to this situation. The urology department is considered a high-risk specialty from the point of medical malpractice.<sup>[13,14]</sup> Kaplan showed that 91 doctors on the list of top doctors in the USA faced an average of 2.36 medical malpractice claims during their careers. He also found that 122 physicians who applied for recertification to the American Urologists Association had an average of 1.9 medical malpractice claims throughout their careers.<sup>[15]</sup> Another study indicated that urologists are exposed to an average of two medical malpractice claims during their career, more than half of urologists did not accept cases that they considered complex and limiting their field of practice, a quarter considered changing their profession, almost half considered quitting medical practice.<sup>[5]</sup>

This study aimed to present 96 cases evaluated by the 1<sup>st</sup> Specialization Committee of The Council of Forensic Medicine, which included medical malpractice claims about urologists resulting in death between 2010 and 2015 and to increase the awareness of urology physicians about medical malpractice claims.

## MATERIAL AND METHOD

### Sampling

The 1<sup>st</sup> Specialization Committee of The Council of Forensic Medicine is the board that carries out independent and impartial expert evaluations in cases of medical malpractice claims resulting in death sent from the prosecutor's office and courts throughout the country, under the administrative authority of the Ministry of Justice. In our study, the cases reported by the 1<sup>st</sup> Specialization Committee of The Council of Forensic Medicine due to the alleged medical malpractice between 2010 and 2015 were evaluated retrospectively. All the claims in which urologists were accused of medical malpractice were included in the study.

### Diagnostic Methods

The cases are sent to the 1<sup>st</sup> Specialization Committee of The Council of Forensic Medicine by the judicial authorities to evaluate the medical malpractice. The rapporteur examines all medical documents, medical imaging materials, statements of witnesses, defendants, and plaintiffs and requests from the judicial authority if any are missing. After the deficiencies are completed, the rapporteur prepares a detailed report and presents it to the Committee. Each case is evaluated separately by the chairman and the members of the Committee, and a decision is made. Finally, a detailed report is prepared and sent to the judicial authorities.

### Data Collection and Processing

Age, gender, the reason for coming to the hospital, academic title of the physician, being a primary or consultant physician, presence of complications, surgical treatments, the health institution, the diagnosis made in the hospital, whether there was medical malpractice, and the reason for medical malpractice parameters were evaluated. Since our study was designed retrospectively, no informed consent form was created. Ethical approval was obtained from the Scientific Academic Committee of the Council of Forensic Medicine, dated 15.12.2015, and numbered 971. Our study respected the ethical standards in the Helsinki Declaration of 1964, as revised in 2013.

### Statistical Analysis

Statistical Package For Social Science SPSS, version 21.0 (IBM SPSS Statistics for Window, Version 21.0, Armonk, NY: IBM Corp.) statistics program was used for data analysis of the study. Descriptive statistics are presented with frequency, percentage, mean, standard deviation (SD), minimum (min), and maximum (max) values.

## RESULTS

In our study, 96 cases were included. 76 (79.2%) cases were female, and 20 (20.8%) were male. The mean age of the cases was  $54.90 \pm 19.59$  (min: 1 month, max: 84). Almost half of the cases (47.9%) were 60 years or older (**Table 1**). In our study, there were medical malpractice allegations about 114 urology physicians (82 specialists, 14 residents, nine associate professors, six professors, three assistant professors) (**Table 2**). In 73 (76.0%) cases, the accused physician was the primary responsible physician, while in 23 (24%), it was the consultant physician (**Table 2**). Medical intervention was performed under elective conditions in 73 (76%) cases and emergency conditions in the remaining 23 (24%) patients (**Table 2**).

Complications developed in 20 (20.8%) of the cases. Sixty-eight (70.8%) cases underwent surgical treatment, while 28 cases (29.2%) only received medical treatment. When the most common diagnoses in health institutions are examined, 20 (20.8%) cases were diagnosed with urinary system stone disease, and 16 (16.7%) cases were diagnosed with benign prostatic hyperplasia (**Table 1**).

**Table 1.** Distribution of age groups, primary disease and reasons for complaint

Age groups	n	%
0–17 years	6	6.3
18–39 years	12	12.5
40–59 years	32	33.3
≥ 60 years	46	47.9
Diagnosis		
Urinary system stone disease	20	20.8
Benign prostatic hyperplasia	16	16.7
Trauma	15	15.6
Urinary system malignancy	13	13.6
Urethral stricture	4	4.2
Urinary system infection	3	3.1
Pyelonephritis	2	2.1
Chronic kidney failure	2	2.1
Retroperitoneal fibrosis	2	2.1
Others	19	19.7
Reason of complaint		
Lack of attention (negligence, indifference, rude manners, etc.)	22	22.9
False treatment	19	19.8
Delay in the initiation of therapy	11	11.5
Insufficient treatment	9	9.4
Failure to diagnose on time	8	8.2
Incorrect surgical practice	5	5.2
Misdiagnosis	5	5.2
Not hospitalization	4	4.2
Early discharge	4	4.2
Deficiency of diagnostic test	4	4.2
Lack of referring	2	2.1
Lack of informed consent	2	2.1
Lack of monitoring/follow up	1	1.0
Total	96	100

**Table 2.** Distribution of physician title, primary responsible-consultant, and medical intervention

Urology physicians title	n	%
Residents	14	12.3
Specialists	82	71.9
Assistant professor	3	2.6
Associate professor	9	7.9
Professor	6	5.3
Total	114	100
Urology physicians		
Primary responsible physician	73	76
Consultant physician	23	24
Medical intervention		
Elective condition	73	76
Emergency condition	23	24
Total	96	100

In this study, 22 (22.9%) of the plaintiffs filed a lawsuit due to lack of care, 19 (19.8%) improper treatment, and 11 (11.5%) treatment delay (Table 1). Reports were prepared by the committee that there was medical malpractice in 16 (16.7%) cases and that there was no medical malpractice in 80 (83.3%)

cases. In 16 cases with malpractice, a total of 16 physicians were attributed faults. It was determined that 14 (87.4%) of the doctors who were attributed faults were specialists, one (6.3%) was an associate professor, and one (6.3%) was an assistant professor. In the 16 cases with medical malpractice, the most common cause of the error was lack of treatment (n=6, 37.5%) (Table 3).

**Table 3.** Distribution of the type of error in physicians with medical malpractice

Classification of Medical Errors	n	%
Lack of treatment	6	37.5
Lack of the necessary laboratory test and radiological examination	5	31.3
Lack of referring	1	6.3
Lack of monitoring/follow up	1	6.3
Missed or misdiagnosis	1	6.3
Lack of consultation	1	6.3
Insufficient informed consent	1	6.3
Total	16	100

## DISCUSSION

### Age

In a study conducted in the USA that included 259 medical malpractice claims, 68.5% of the cases were 35-70 years old.<sup>[16]</sup> The mean age of the cases was 56.5 (min:44, max:71) in the study performed on the malpractice alleged cases with penile prosthesis.<sup>[17]</sup> In a study examining cases of testicular torsion claiming medical malpractice, mean patient age was reported as 15.4±10.4.<sup>[18]</sup> In this study, the mean age of the cases was 54.90±19.59 (min: 1 month, max: 84). Almost half of the our cases (47.9%) were 60 years or older.

### Sex

It was reported in a study that 83.5% of the plaintiffs were women.<sup>[13]</sup> In another study, it was shown that 16 (64%) of 25 cases were female, and nine (36%) were male (2). In a study conducted in California examining urological catheter-related medical malpractice claims, it was found that 52% of the complainants were male.<sup>[19]</sup> In this study, the majority (79.2%) of the cases were female compatible with literature.

### Physician

Studies investigating medical malpractice claims in Turkey have reported that 82.9% of general surgeons and 90.9% of obstetricians were specialists (20,21). In this study, it was found that 71.9% of the accused urologists were specialists (Table 2). We think that this situation was due to the higher number of specialists in general.

### Consultation

Physicians specialized in a single branch may ask the opinion of doctors of other specialties in complex patients or patients with complications. Although the physician following the patient is responsible for the patient's treatment, the consultant also has accountabilities. The consultant has to

inform the responsible physician clearly and understandably, in writing, about their opinions about the patient, their diagnosis, and the most appropriate treatment method to be followed.<sup>[22,23]</sup> Only 24% of the accused physicians in this study were consultants (**Table 2**).

### Emergent-Elective Cases

In Belgium, only 24% of surgical-related medical malpractice claims are emergency cases.<sup>[24]</sup> Kahan et al., examined 259 malpractice cases and observed that the alleged medical malpractice occurred in the hospital setting in 181 instances, the office in 73 cases, and the emergency room in five cases.<sup>[16]</sup> In a study of 53 cases diagnosed with testicular torsion and alleged medical malpractice, 26 (51%) of the cases presented to the emergency department.<sup>[18]</sup> In a study conducted in Turkey, 54.3% of general surgeons and 79.8% of obstetricians accused of medical malpractice examined the patient under emergency conditions.<sup>[20,21]</sup> In this study, only 24% of the cases were treated under emergency conditions (**Table 2**). This may be related to the lower number of emergency patients in the urology department than other surgical branches.

### Presence of Complications

Duty et al., examined 25 cases of alleged medical malpractice due to endourological procedures. They reported that 16 (64%) cases experienced complications leading to further operations, and six (24%) died due to sepsis.<sup>[2]</sup> Kahan et al., reported that postoperative complications developed in 39% of urological cases.<sup>[16]</sup> In a study using the "PubMed" and "Educus" databases, 6.2% of the claims were due to complications.<sup>[4]</sup> In the study of Gaither et al., two of the 53 cases had medical malpractice claims due to postoperative complications.<sup>[18]</sup> In the analysis of 469 cases with indemnity payment in the USA, it was stated that complications developed after surgery in 101 patients, and the most common cause of malpractice claims was the development of postoperative complications in these cases.<sup>[25]</sup> In this study, complications developed in 20 (20.8%) cases.

### Surgical Treatment

In the study of Duty et al., 23 (92%) of 25 cases had a history of surgical procedures.<sup>[2]</sup> In the study of Kahan et al., surgical operations were performed in 135 (52.1%) of 259 cases.<sup>[16]</sup> In a study conducted in England, 260 (52.7%) of 493 cases were closed with indemnity payments complained about surgical intervention.<sup>[26]</sup> In this study, surgical treatment was applied to more than half of the cases (n:68, 70.8%), corresponding with the literature.

### Diagnosis

A diagnostic error was found in 75 of 469 cases where medical malpractice was claimed due to missed or delayed diagnosis in New York. Of these 75 diagnostic errors, 58 were made in urological diagnoses, and 17 were made in non-urological diagnoses. Of the 58 missed urological diagnoses, there were 34 malignancy, seven testicular torsions, two urinary system stone disease, two bladder perforations, and one each had kidney injury, urethral stricture, foreign body, undescended

testis, renal abscess, and gangrenous testis.<sup>[14]</sup> In a survey study, 28% of 683 physicians were accused of medical malpractice in urological oncology, 12% in endourology, and 10% in female urology.<sup>[5]</sup> In the study of Duty et al., 22 of the 25 cases had urinary stone diseases, and the remaining three (12%) had ureteral obstructions.<sup>[2]</sup> In the study of Kahan et al., 30 (22.2%) of 259 cases underwent endoscopic procedures, 20 (14.8%) orchiectomy, 16 (11.8%) penile prosthesis, 12 (8.9%) nephrectomy, nine (6.7%) prostatectomy, seven (5.2%) circumcision, and four (2.9%) bladder sling surgery.<sup>[16]</sup> In the study of Osman et al., with 493 cases, the most common cause of complaints of operations were TURP (Transurethral resection of the prostate) in 30 patients, nephrectomy in 26 cases, ureteroscopy in 23 cases, ureteral stents in 22 cases, vasectomy in 19 cases, and urethral catheterization in 15 cases.<sup>[26]</sup> The most common diagnoses in this study were; 20 (20.8%) cases with urinary system stone disease, 16 (16.7%) cases with benign prostatic hyperplasia, and 13 (13.5%) cases with urinary system malignancies.

### Reason of Complaint

In a study of 522 cases with ureteral injuries were examined; there were 474 (90.8%) intraoperative neglect, 110 (21.1%) postoperative neglect, 68 (13.0%) inadequate preparation claims.<sup>[13]</sup> Duty et al., reported that 17 of 25 patients for whom indemnity was paid were due to improper surgical technique, four due to failure to organize follow-up, two for delay in treatment, one for failure to diagnose, and one for improper patient contact.<sup>[2]</sup> In the study of Stimson et al., it was reported that 40% of the complaints were about care and treatment, 24% lack of communication, 22% accessibility, 10% patient and family concerns, 5% billing.<sup>[27]</sup> In the study of Awad et al., in urethral catheter-related cases, 14 (48%) cases complained of traumatic insertion, eight (28%) removal, three (10%) mechanical failure, three (10%) lack of consent, one (3%) non-sterile insertion.<sup>[19]</sup> In the study conducted by Sunaryo et al. on cases with penile prostheses, the surgical technique was inadequate in 20 (48.8) cases, seven (17.1%) cases had diagnosis and treatment errors, five (12.2%) cases had surgical complications, three (7.3%) cases had errors in prosthesis removal, two (4.9%) cases had device failure, two (4.9%) cases lack informed consent, one (2.4%) case had inflated foley catheter removal, and one (2.4%) case had contraindicated prescription of the device.<sup>[17]</sup> In a study conducted among obstetricians, the most common claims were lack of care (47.5%), treatment delay (13.1%), diagnostic error (12.5%), and improper treatment (11.4%) (20). In this study, there were claims of lack of care in 22 (22.9%) cases, improper treatment in 19 (19.8%), and treatment delay in 11 (11.5%) cases (**Table 1**).

### Malpractice Rate

In a study conducted with urologists, only 3.5% of the cases closed in favor of the complainants, 13.2% of the accused physicians, 46.9% rejected or dropped without a trial, 36.3% closed via mediation in pretrial phases.<sup>[5]</sup> It has been reported that 66% of urethral catheter-related medical malpractice

cases were ended with a verdict favoring the defendant, 28% favoring the plaintiff, and mediation was reached in 7% of them.<sup>[19]</sup> In a study on penile prosthesis cases, a verdict favoring defendants was achieved in 23 (57.5%) cases and the plaintiffs in 17 (42.5%) cases.<sup>[17]</sup> In a study of medical malpractice claims directed to urologists between 1985 and 2007 conducted in Chicago, only 29.41% of 5577 cases resulted in indemnity payments.<sup>[3]</sup> A study conducted with cases of medical malpractice claims related to endourological operations determined that 23% (n:137) of 585 allegations closed with indemnity payments. The same study determined that indemnity payments were made in 10 (40%) of 25 cases associated with endourological operations.<sup>[2]</sup> In this study, only 16.7% of the cases were reported as medical malpractice by the committee. This shows that 83.3% of malpractice claims in urology are filed without a just claim. Medical malpractice allegation lawsuits are very lengthy trials. Malpractice laws are needed to prevent unjust claims due to their adverse effects on the physician.

### Reason of Malpractice

Badger et al. found that 75 out of 469 cases (16%) of missed diagnoses claims were closed with indemnity payments.<sup>[14]</sup> In their study of 5,557 cases, Benson et al. found improper performance in 36%, diagnostic error in 15%, and lack of supervision or monitorization in 5.6% of the cases.<sup>[3]</sup> In the United States between 2003 and 2012, indemnities for urological medical malpractice were frequently paid due to misdiagnoses, improper performances, failure in the follow-up, and failure of the complication management.<sup>[4]</sup> In the study of Osman and Collins, which included urological cases that ended with indemnity, the most common non-operative claim was the failure of cancer diagnosis/treatment (n: 69), the most common intraoperative complaint was perforation/organ injury (n: 38), the most common postoperative claim was forgotten ureteral stent (n:23).<sup>[26]</sup> In the study of Perrotti et al. in 469 cases, it was reported that compensation was paid due to postoperative events in 101 cases, surgical negligence or perforation in 96 cases, misdiagnosis in 60 cases, medication errors in 21 cases, and forgotten foreign body in 20 cases.<sup>[25]</sup> This study determined that malpractice was decided most frequently by the committee due to lack of treatment (n:6, 37.5%) and lack of the necessary laboratory test and radiological examination (n:5, 31%) (**Table 3**).

**Limitations:** In this study, we only could evaluate the claims of medical malpractice that resulted in death. Therefore, all types of medical malpractice could not be represented. In addition, The Council of Forensic Medicine, where the study was conducted, is only an expertise institution and is not the final decision-maker. Judges may request another expert appraisal. The fact that the final decision and the amount of indemnity payment could not be reached is another significant limitation of this study. However, our study focused on why physicians were accused of medical malpractice rather than why malpractice judgment was made.

## CONCLUSION

No-fault was attributed to 83.3% of the accused urologists in our study. Most medical malpractice claims, which are increasing day by day, are concluded in favor of physicians. Physicians are often accused of unjust claims. We showed that the relatives of the patients most frequently claimed lack of attention (22.9%). In addition, we determined that the most common fault was attributed to the physician by the committee due to lack of treatment and workup. We think that a comprehensive examination of the cases with medical malpractice claims will contribute to a better understanding of these cases, reduce possible future claims, and thus improve the health service offered and public health.

## ETHICAL DECLARATIONS

**Ethics Committee Approval:** Ethical approval was obtained from the Scientific Academic Committee of the Council of Forensic Medicine, dated 15.12.2015, and numbered 971.

**Informed Consent:** Because the study was designed retrospectively, no written informed consent form was obtained from patients.

**Referee Evaluation Process:** Externally peer-reviewed.

**Conflict of Interest Statement:** The authors have no conflicts of interest to declare.

**Financial Disclosure:** The authors declared that this study has received no financial support.

**Author Contributions:** All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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