

# Medical Malpractice Claims Against Physical Therapy and Rehabilitation Physicians

## Fizik Tedavi ve Rehabilitasyon Hekimlerine Yönelik Tıbbi Uygulama Hatası İddiaları

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**ABSTRACT Objective:** Physicians have been strongly affected by the stress caused by malpractice lawsuits. This study aims to increase the awareness of physical therapy and rehabilitation physicians about cases with alleged medical malpractice. **Material and Methods:** Allegations of medical malpractice against physical therapy and rehabilitation physicians were examined retrospectively from the report archives of the First Specialization Board of Council of Forensic Medicine between 01.01.2010 and 31.12.2015. **Results:** This study included 22 cases: 11 cases (50%) were male, 11 were (50%) female. The mean age was 48.86±22.9 (minimum: 16, maximum: 85), and 40.9% of the cases were 60 years or older. The event that was the subject of the complaint occurred most frequently in the state hospital (n=7, 31.8%) and the private hospital (n=6, 27.3%). One-fourth of the physical therapy and rehabilitation physicians (27.3%) intervened as consultant physicians. Twenty-five physicians (5 residents, 18 specialists, 1 assistant professor, and 1 professor) were charged with malpractice allegations. The most frequent diagnosis was "lumbar disc herniation" (n=5, 22.7%), followed by "paraplegia" (n=3, 13.6%). While medical malpractice was not found in 21 cases, it was confirmed in only 1 case by the Board. **Conclusion:** In this study, 95.5% of the physical therapy and rehabilitation physicians were accused of unfair reasons. The new malpractice law needs to be regulated as soon as possible. Until the new law is passed, physicians should analyze the cases with claims of medical malpractice and develop strategies and approaches to prevent these claims.

**Keywords:** Malpractice; physical therapy and rehabilitation physicians; forensic medicine

**ÖZET Amaç:** Hekimler, malpraktis davalarının neden olduğu stresten güçlü bir şekilde etkilenmektedir. Bu çalışmada, fizik tedavi ve rehabilitasyon hekimlerinin tıbbi uygulama hata iddiası olan vakalar hakkında farkındalıklarının artırılması amaçlanmıştır. **Gereç ve Yöntemler:** 01.01.2010-31.12.2015 tarihleri arasında Adli Tıp Kurumu Birinci İhtisas Kurulu rapor arşivlerinden fizik tedavi ve rehabilitasyon hekimlerinin suçlandığı tıbbi uygulama hatası iddiaları olan olgular retrospektif olarak incelendi. **Bulgular:** Bu çalışmaya 22 olgu dâhil edildi: 11 (%50) olgu erkek, 11 (%50) olgu kadındı. Yaş ortalaması 48,86±22,9 (minimum: 16, maksimum: 85) olup, olguların %40,9'u 60 yaş ve üzerindediydi. Şikâyeteye konu olay en sık devlet hastanesinde (n=7, %31,8) ve özel hastanede (n=6, %27,3) meydana geldi. Fizik tedavi ve rehabilitasyon hekimlerinin 1/4'ü (%27,3) konsültan hekim olarak müdahale etmiştir. Yirmi beş hekim (5 asistan, 18 uzman, 1 yardımcı doçent ve 1 profesör) malpraktis iddiasıyla suçlandı. En sık tanı "lomber disk herniasyonu" (n=5, %22,7) idi ve bunu "parapleji" (n=3, %13,6) izledi. Yirmi bir olguda tıbbi uygulama hatası tespit edilmezken, sadece 1 olguda kurul tarafından malpraktis teyit edildi. **Sonuç:** Bu çalışmada fizik tedavi ve rehabilitasyon hekimlerinin %95,5'i haksız sebeplerle suçlanmıştır. Yeni malpraktis yasasının bir an önce düzenlenmesi gerekmektedir. Yeni yasa çıkana kadar hekimlerin tıbbi uygulama hata iddiası olan olguları iyi analiz etmesi ve bu iddiaları engellemeye yönelik stratejiler geliştirmesi gereklidir.

**Anahtar Kelimeler:** Malpraktis; fizik tedavi ve rehabilitasyon hekimleri;

Medical malpractice may be expressed as a deviation from the general standard of medical practice.<sup>1</sup> The purpose of malpractice suits is to compensate pa-

tients injured by negligence, promote corrective justice by compensating for unjustified losses, and deter negligent acts.<sup>2</sup> Physicians have been strongly affected by

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the stress caused by malpractice lawsuits. In case of encountering malpractice claims, physicians try to protect themselves by requesting examination and imaging methods above the practice standards.<sup>1</sup> And as a result, the defensive medicine phenomenon emerges, which causes a serious economic burden on the health system and a decrease in the quality of health services.<sup>2</sup> In Türkiye, as in Italy, both criminal and compensation lawsuits can be filed against physicians in the claim of medical malpractice.<sup>3</sup> Healthcare workers are more stressed under the shadow of criminal sanctions. In addition, plaintiffs may abuse the criminal justice system to put more pressure on the defendant to force compensation or a good deal.<sup>4</sup>

Physical medicine and rehabilitation were considered among the specialties with low risk of medical malpractice claims such as psychiatry, dermatology, and pathology departments.<sup>5</sup> However, physical therapy and rehabilitation physicians may also have to face the claim of medical malpractice. A survey of physical therapy and rehabilitation physicians in Iowa revealed that physicians' top concerns were underpayment and high malpractice compensation.<sup>6</sup> Only 0.2% of all medical malpractice claims in Japan were related to physical therapy and rehabilitation specialty.<sup>7</sup> Similarly in China, malpractice cases related to physical therapy and rehabilitation physicians were below 1%.<sup>8</sup> In the United States, the physical therapy and rehabilitation branch was not among the top 20 branches in terms of malpractice claims and was considered to be low-risk.<sup>9</sup> Although the physical therapy and rehabilitation branch is considered to be low risk in terms of malpractice in Türkiye, there is no clear information about the malpractice lawsuit rate yet. No matter how low the risk is, it should not be ignored that malpractice lawsuits take many years and causes serious psychological effects on the physician. Can et al. examined 28 files alleged malpractice that were decided at the Supreme Court.<sup>10</sup> They found that the time elapsed between the occurrence of the event and the decision was under 5 years in 53.3% of the cases, between 5-10 years in 33.3%, and over 10 years in 13.3%.<sup>10</sup>

The first specialization board is a committee that includes academic experts from different specialties and issues expert reports within the body of the Council of Forensic Medicine, which is an institution affiliated with

the Ministry of Justice. In line with the requests from judicial authorities across Türkiye, the Board issues reports on the causes of death, medical malpractice resulting in death, and the causal link between death and medical malpractice.

This study aimed to present 22 cases evaluated by the First Specialization Board of Council of Forensic Medicine, which included a claim of medical malpractice resulted in death between 2010 and 2015, and to increase the awareness of physical therapy and rehabilitation physicians about cases with alleged medical malpractice.

## MATERIAL AND METHODS

### SAMPLING

Allegations of medical malpractice against physical therapy and rehabilitation physicians were examined retrospectively from the report archives of the First Specialization Board of the Council of Forensic Medicine between January 2010 and December 2015.

### DATA COLLECTION AND IMPLEMENTATION

While the data were being recorded, the following parameters were scrutinized: the gender and age of the cases, the healthcare organization visited, the academic title of the physician, the clinical diagnosis, medical treatments performed, the reason for medical malpractice or not. The present study was a retrospective study that included no identifying data or human/animal subjects, so informed consent was not required. Ethical permission of the article was obtained from the Scientific Research Ethics Committee of the Istanbul Forensic Medicine Institute with the letter numbered 21589509/971 on 15.12.2015. The study was conducted in accordance with the principles of the Declaration of Helsinki.

### STATISTICAL ANALYSIS

The 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 the data analysis in this study. Descriptive statistics were presented as the frequency, percentage, mean, standard deviation, minimum, and maximum values.

## RESULTS

This study included 22 cases: 11 cases (50%) were male, 11 were (50%) female. The mean age was  $48.86 \pm 22.9$  (minimum: 16, maximum: 85), and 40.9% of the cases were 60 years or older (Table 1). The event that was the subject of the complaint occurred most frequently in the state hospital ( $n=7$ , 31.8%) and the private hospital ( $n=6$ , 27.3%) (Table 1). One-fourth of the physical therapy and rehabilitation physicians (27.3%) intervened as consultant physicians. 25 doctors (5 residents, 18 specialists, 1 assistant professor, and 1 professor) were charged with malpractice allegations. The most frequent diagnosis was “lumbar disc herniation” ( $n=5$ , 22.7%), followed by paraplegia ( $n=3$ , 13.6%) (Table 1). While medical malpractice was not found in 21 cases, medical malpractice was confirmed in only 1 case by the Board.

It was determined that the diagnosis made by the physical therapy and rehabilitation physicians in seven cases changed later. Three of these seven cases were given physical therapy by a physical therapy and rehabilitation physician with the diagnosis of lumbar disc herniation, however, as a result of subsequent evaluations, it was determined that one case had metastatic lung cancer, one case had an intraspinal-paraspinal-paravertebral abscess in the lumbar region due to brucella, and one case had rheumatoid arthritis. These seven events are given in detail in Table 2.

In a case with medical malpractice, the physical therapy and rehabilitation physician prescribed methotrexate 5 g/50 mL vial to the patient diagnosed with rheumatoid arthritis. The patient developed neutropenic fever, Steven-Johnson syndrome, and sepsis due to the use of high-dose methotrexate. The board reported that the physician made a mistake because he gave the drug at a high dose when he should have given a low dose of the drug, and there was a causal link between the physician’s mistake and death.

The average time from the date of the incident to the receipt of the expert report was  $24.81 \pm 18.22$  (minimum: 2, maximum: 66) months.

## DISCUSSION

The claim of medical malpractice and the subsequent judicial process severely wears away at the physicians.<sup>11</sup>

Malpractice lawsuits are closely related to occupational restlessness, deterioration in physical and psychological health, and burnout syndrome.<sup>12,13</sup> As a result, physicians provide additional healthcare services to reduce adverse outcomes, deter patients from suing, and/or demonstrate to the legal system that a standard of care has been met.<sup>14</sup> Lawsuits are a source of stress for doctors, and prolonged lawsuits add to this stress. In addition, physicians under litigation stress are more absent-minded and more prone to error.<sup>15</sup> This situation causes a serious vicious circle for physicians.

There are not enough studies on the claim of medical malpractice in Türkiye. Studies were often related to specialties that are considered risky such as general surgery, obstetrics, and pediatrics.<sup>16-18</sup> In these studies, except for obstetrics and gynecology specialty, the victims were usually male.<sup>16-18</sup>

In this study, however, the male and female sex ratios are equal and 50%. Pediatrics medical malpractice claims occurred frequently in state hospitals.<sup>18,19</sup> However, almost half of the medical malpractice claims about obstetricians have occurred in private hospi-

**TABLE 1:** Distribution of age, hospital, and diagnosis.

|   | n  | %    |
|---|----|------|
| <b>Age group</b>                            |    |      |
| 0-17 years                                  | 2  | 9.1  |
| 18-39 years                                 | 6  | 27.3 |
| 40-59 years                                 | 5  | 22.7 |
| ≥60 years                                   | 9  | 40.9 |
| <b>Healthcare organization</b>              |    |      |
| State hospital                              | 7  | 31.8 |
| Education and research hospital             | 2  | 9.1  |
| University hospital                         | 4  | 18.2 |
| Private hospital                            | 6  | 27.3 |
| Physical medicine and rehabilitation center | 3  | 13.6 |
| <b>Diagnosis</b>                            |    |      |
| Lumbar disc herniation                      | 5  | 22.7 |
| Paraplegia                                  | 3  | 13.6 |
| Soft tissue trauma                          | 2  | 9.1  |
| Multiple trauma                             | 2  | 9.1  |
| Lumbar spinal stenosis                      | 2  | 9.1  |
| Others*                                     | 8  | 36.4 |
| Total                                       | 22 | 100  |

\*Hip replacement, fracture sequelae, impingement syndrome, gonarthrosis, ankylosing spondylitis, rheumatoid arthritis, cerebrovascular disease, quadriplegia.

TABLE 2: Cases in which the initial diagnosis changed later.

| Age | Gender | Health institution                         | Initial diagnosis                    | Final diagnosis  | Delay time in diagnosis (day) | The physical therapy and rehabilitation physicians fault | Reason for not fault   |
|-----|--------|--|--------------------------------------|--|-------------------------------|--|--|
| 50  | Male   | Physical therapy and rehabilitation center | Lumbar disc herniation               | Metastatic lung cancer   | 45                            | No   | Since there was no improvement after 21 days of treatment, the physician requested a lumbar MRI again and was referred to an orthopaedist. |
| 42  | Male   | Private hospital                           | Soft tissue trauma                   | Hip fracture   | 1                             | No   | When the patient came back the next day with the complaint of pain, he was referred to the orthopaedist by the physician.                  |
| 64  | Male   | State hospital                             | Soft tissue trauma                   | T9 vertebra compression fracture   | 14                            | No   | There was no causal link as the fracture was an old fracture from seven months ago.  |
| 16  | Male   | Private hospital                           | Lumbar muscular strain-sciatica pain | Septic shock   | 2                             | No   | When there was a growth in the patient's urine culture, the physician requested urology consultation on time.                              |
| 45  | Female | Private hospital                           | Lumbar disc herniation               | An intraspinal-paraspinal-paravertebral abscess in the lumbar region due to brucella | 90                            | No   | MRI findings were consistent with the diagnosis, therefore the treatment given was appropriate.  |
| 66  | Female | Private hospital                           | Lumbar disc herniation               | Rheumatoid arthritis   | 8                             | No   | MRI findings were consistent with the diagnosis, therefore the treatment given was appropriate.  |
| 20  | Male   | Private hospital                           | Ankylosing spondylitis               | Acute myeloid leukemia   | 150                           | No   | <b>MR findings were consistent with the diagnosis, and blood values were normal.</b>   |

MRI: Magnetic resonance imaging.

tals.<sup>20</sup> In this study, the events that were the subject of the complaint occurred most frequently in the state hospital (n=7, 31.8%) and the private hospital (n=6, 27.3%). The increasing number of patients and workload in state hospitals increase the risk of malpractice claims accordingly. In private hospitals, on the other hand, the low tolerance threshold of patients who pay for health services increases the likelihood of malpractice claims.<sup>21</sup>

Physicians often get ideas and suggestions from their colleagues in other branches regarding the follow-up or treatment of their patients, and they arrange the treatment of their patients according to these recommendations. The point that should be known here is that the primary responsibility of the patient belongs to the physician who performs the follow-up and treatment, and the consultant physician is obliged to report his or her views on the patient in writing and verbally.<sup>22</sup>

Üzün et al. reported that 66.9% of pulmonologists intervened as consultant physicians and the rate of malpractice among consultant physicians was significantly higher.<sup>23</sup> In this study, one-fourth of the physical therapy and rehabilitation physicians (27.3%) intervened as consultant physicians.

Fellecher and Findley reported that the diagnosis with the highest indemnity in the physical medicine and rehabilitation specialty were femur fracture, paraplegia, epilepsy disorders, and vertebral column malignancies.<sup>5</sup> Lumbar degenerative disorders ac-

count for 59.4% of spine-related medical malpractice claims in China.<sup>24</sup> In this study, the most frequent diagnosis was “lumbar disc herniation” (n=5, 22.7%), followed by paraplegia (n=3, 13.6%).

The Doctors Company examined 111 claims related to physical therapy and rehabilitation physicians between 2008 and 2018. The most common alleged malpractice causes were reported to be inappropriate performance in treatment or procedure (22%), diagnosis-related (delay, misdiagnosis) (19%), mistreatment (15%), and incorrect drug administration (11%).<sup>25</sup> In Japan, 39.3% of all malpractice claims were associated with diagnostic errors.<sup>7</sup> In a study of 756 malpractice claims, 70% of malpractice claims were associated with misdiagnosis, missed or delayed diagnosis.<sup>26</sup> Watari et al. reported the rate of death and compensation are higher in cases with diagnostic errors in medical malpractice claims than in cases without.<sup>7</sup> In this study, the initial diagnosis made by the physical therapy and rehabilitation physicians in seven (31.8%) cases changed later on. Three of these seven cases were given physical therapy by a physical therapy and rehabilitation physician with the diagnosis of lumbar disc herniation, however, as a result of subsequent evaluations, it was determined that one case had metastatic lung cancer, one case had an intraspinal-paraspinal-paravertebral abscess in the lumbar region due to brucella, and one case had rheumatoid arthritis. Moreover, physical therapy and rehabilitation physicians had diagnosed soft tissue lesions in two cases, but it was later found out that one of the cases had a hip fracture and the other had a vertebral fracture. In order to prevent claims of medical malpractice in diagnosis, we list our recommendations to physical therapy and rehabilitation physicians as follows; not avoiding additional procedures (such as magnetic resonance imaging) in the diagnosis of patients if the physician thinks it is necessary, allocating sufficient time for patient examination, requesting further examination and consultation in patients who do not respond to treatment, comparing new X-rays with previous ones, examining each applicant as a new patient considering that previous diagnoses may also be wrong.

Adverse drug events accounted for 6.3% of medical malpractice claims in the United Kingdom.<sup>27</sup> Fel-lecher and Findley reported that medication errors were

responsible for 14% of financial losses from medical malpractice claims.<sup>5</sup> Adverse drug events are 73% preventable and 46% are claimed to be fatal.<sup>27</sup> In a case of the present study with medical malpractice, the physical therapy and rehabilitation physician prescribed methotrexate 5 g/50 mL vial to the patient with the diagnosis of rheumatoid arthritis. Neutropenic fever, Steven-Johnson syndrome, and sepsis were developed due to the use of high-dose methotrexate. The board reported that the physician made a mistake because he gave the drug at a high dose when he should have given a low dose of the drug, and there was a causal link between the physician’s mistake and death. We think that it would be beneficial for the physical therapy and rehabilitation physicians in terms of reducing the claims of medical malpractice to be more careful in prescribing the drugs of rheumatological patients, to follow up the patients using these drugs more closely in terms of side effects.

It took an average of 19 months to resolve a medical malpractice claim in the United States. But if the claim went to court, the case was concluded in an average of 39 months in cases where the defense was right, and in 43.5 months on average in cases where the plaintiff was right.<sup>28</sup> The average time from the incident alleged medical malpractice in China to the conclusion of the case was 36 months.<sup>8</sup> On the other hand, it has been stated that the average time required for the closure of the case in Taiwan is 7.6 years.<sup>4</sup> In this study, the mean time from the date of the incident to the time when the expert report was received was  $24.81 \pm 18.22$  (minimum: 2, maximum: 66) months. Although the date the courts were concluded is unknown, according to the data we obtained, it can be said that malpractice cases take a long time in Türkiye.

This study was carried out in the First Specialization Board of the Council of Forensic Medicine and this board is a committee of experts who evaluate malpractice claims resulting in death. Medical opinion is reported to courts and prosecution offices by the Board. If the judge or prosecutor does not find the decision sufficient, he can also get an opinion from another expert institution. In other words, the decisions of the board made are not final. Therefore, the inability to reach the final decision of the judicial

process is an important limitation of the current study. However, the main purpose of the study is to increase the knowledge and awareness of physicians about cases with claims of medical malpractice. The study only includes cases resulted in death. So, it may not be claimed to represent all of the cases with medical malpractice claims. However, it is crucial that our study includes cases from all over the country to provide important clues for the physical therapy and rehabilitation physicians about cases of alleged medical malpractice.

## CONCLUSION

Despite these limitations, this was the first study in Türkiye that included cases with medical malpractice claims filed against the physical therapy and rehabilitation physicians. The most frequent diagnosis was

“lumbar disc herniation” (n=5, 22.7%), followed by paraplegia (n=3, 13.6%). We determined that the initial diagnosis made by the physical therapy and rehabilitation physicians in seven cases changed later on. Therefore, we recommend that physicians should evaluate each patient as a new patient (detailed examination, re-evaluation of old radiographs, and new radiological imaging). In this study, we found that only one physician was given a medical malpractice decision by the board. In other words, 95.5% of the physical therapy and rehabilitation physicians were accused of unfair reasons. The fact that there is no malpractice law in Türkiye and physicians are tried in both civil and criminal courts is a very important problem. The new malpractice law needs to be regulated as soon as possible. Until the new law is passed, physicians should analyze the cases with claims of medical malpractice and develop strategies and approaches to prevent these claims.

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