



# Evaluation of the Medicolegal Process in Neurosurgical Practice with A Scenario

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## ABSTRACT

The main purpose of medicine is to protect humans from diseases and its complications. Patients may be at risk in the course of diseases or during medical and surgical treatments, which can have undesirable consequences, including death. These risks, which are accepted by all medical authorities and medical literature, are called "complications." One of the responsibilities of the physicians is to detect complications on time and to manage them in accordance with the current medical standards. In the last two decades, allegations that any medical practice is "faulty" have been increasing, and these allegations are presented to the press and media regardless of whether they are justified. This situation adversely affects the medical practice, leading to defensive medical practices, affecting the public health. In this article, we presented our medical responsibilities over a neurosurgical scenario and mentioned the legal procedures to be experienced in such a situation. As physicians, we must know all the legal responsibilities of our profession and record all stages of treatments applied, to suffer the least damage from these claims and legal processes that cause pecuniary and non-pecuniary injury.

**KEYWORDS:** Medicolegal aspects, Neurosurgical procedures, Complications, Malpractice

**ABBREVIATIONS:** CT: Computed tomography

## INTRODUCTION

In the last two decades, patients have been becoming more investigative of their physicians and health institutions in Turkey (1). Patients may claim that the diagnosis is inaccurate, the treatment has no curative effect, and/or the wrong treatment is applied. Especially, some medical practices that do not satisfy patients' expectations became unfair accusations and impeachments. This situation causes a redundant pressure on physicians and healthcare professionals. Physicians are regarded as responsible for all problems arising from the healthcare system and suffer pecuniary and non-pecuniary damages due to unnecessary lawsuits. At present, this circumstance leads to the emergence of defensive medicine that affects individual and public health. Physicians highly likely consider that he/she will not be treated objectively, which leads him/her to excessively limit his performance of any medical intervention. This behavior results

in defensive medicine practices (1). To avoid such incidents, physicians have been avoiding taking risks in recent years and prefer not to go beyond mandatory treatments (6).

In this report, we will present the legal liabilities of physicians by touching on the experiences that we gained in our clinic. We conveyed the medicolegal process in Turkey and what physicians should do in neurosurgical practice through a probable scenario to be least affected by such a case.

## CASE REPORT

A 55-year-old female patient presented with back and leg pain that exist for several years. Her complaints had increased in the last 6 months, and she was having a neurogenic claudication after walking more than 20 meters. Neurological examination revealed no deficits. Lumbar spinal MRI showed disk herniations at L2-3 and L4-5 levels caused spinal

stenosis. Partial hemilaminectomy and microdiscectomy treatment was planned. After obtaining informed consent, the patient underwent surgery. Toward the end of the surgery, the patient's arterial blood pressure decreased. Given the possibility of vascular injury, the patient underwent abdominal computed tomography (CT) immediately under general anesthesia. Aortic injury was detected on abdominal CT, and emergency laparotomy was performed. Primary repair of the aortic rupture was attempted with the cardiovascular surgery team. However, as primary repair was not feasible for the rupture, the interventional radiology department was consulted intraoperatively. Femoro-femoral bypass, aorto-uni-iliac stent graft, and endovascular abdominal aortic repair were performed in the endovascular treatment unit. Meanwhile, necessary intravenous treatments and transfusion procedures were performed to ensure the patient's hemodynamics. After follow-up in the intensive care unit for 15 days and in the inpatient clinic for 25 days, the patient was discharged with anticoagulant and antiaggregant treatment with good general condition and can mobilize independently without any neurological deficit. However, a few months later, the patient and her relatives filed a suit for damages against the surgery team in accusation of negligent injury.

## ■ DISCUSSION

The aforementioned scenario is one of the most serious events following lumbar discectomy. In such an incident, the patient may file a suit even though the possibility of this complication is written on the informed consent form that the patient had signed prior to the surgery. The court may accept the lawsuit. The patient's lawyer may initiate an administrative investigation at the hospital where the incident occurred. In this case, while the physician tries to defend and testify, he/she may experience a long-term nervous breakdown due to the rumors in the working environment. Moreover, the patient and his/her relatives may file false charges (2). After such a situation, the physician may push himself/herself to the background by losing his/her motivation with the concern that he/she will spend time in the courthouse corridors in the face of any negative situation in his/her professional life. He/she may avoid any medical and surgical practices that pose a risk of legal problems to him/her. However, the physician's realizations of these concerns are undoubtedly disadvantageous to the patients' and public health. With these physician attitudes, patients were unable to receive necessary treatment in case of serious or complicated diseases (1). These experiences are the reasons of the emergence of defensive medicine, which is common today, and why surgical sciences are less preferred in the Turkish Medical Specialty Examination (those accepted as "risky" by the physicians.)

A medical intervention can be applied by people authorized by law, with an indication and an informed consent, under necessary and appropriate conditions in accordance with the data of medicine. If medical practices that do not comply with these conditions have been carried out and injury has occurred and if there is a causal relation between the harm and practice, this practice becomes legally faulty. With this

practice, the physician's administrative liability, private liability, criminal liability, and deontological responsibilities may be questioned, and disciplinary, indemnity, or other criminal sanctions may be imposed on him/her (3).

Physicians have to educate the patients about the procedure beforehand and obtain the patient's consent in written form. The written informed consent form must contain three aspects of the treatment: possible adverse events during the treatment, possibilities of their occurrence, and measures to prevent them. Thus, the patient must know the good and possible bad outcomes related to the treatment and must consent to it prior to the treatment. For example, an unfortunate event has occurred during or after the treatment and the physician knows the probability of this event beforehand; however, the physician did not inform the patient about this complication and/or the informed consent form was not obtained before the procedure. This situation would be appropriately define as conscious negligence (2).

As every action is inherently capable of posing risks, zero risk is only possible with inaction. This fact also applies to medical practice. Therefore, in the medical profession, a rational risk-benefit analysis is performed, and a certain risk is allowed. The medical equivalent of the concept of this "permitted risk" in today's understanding of law is called "complication," which is not considered a fault alone. Thus, physicians and other healthcare professionals could not be held responsible for the undesirable outcomes that may occur within the risk area accepted by medicine. However, if the physician makes a mistake, he/she could be held responsible for the risk that will arise after the procedure or treatment. When any harm occurs to the patient, medical experts should identify whether this harm is caused by the procedure (or treatment) and/or by faulty practice. Medical experts evaluate the harm by considering the education level of the physician. In addition, they evaluated whether the physician provided the necessary attention and care compared with another physician who provided the same level of competence in the same environmental conditions. Although some of the medical complications are foreseeable and some are unpredictable, every physician has a responsibility to prevent or mitigate the effects of any negative consequences. If the physician does not take the necessary precautions for foreseeable complications, or if an untoward result occurs after an unpredictable complication and the physician was not doing necessary measures to mitigate the harm, the physician can be regarded as showing negligent behavior, in other words, careless medical intervention (malpractice). Therefore, any complication that is not managed properly may become a malpractice (1). Examples of malpractices include inadequate medical observation, delay in medical intervention, delayed or incorrect referral, inadequate precaution, incorrect or careless treatment (not hospitalizing patients at risk of life-threatening complications), not following up in the intensive care unit, not providing enough fluid or blood transfusion, inadequate diagnosis (such as not making the necessary consultations or only communicating by mobile phone application, not recording them, not adding the evaluated and excluded pathologies on the examination note), and illegal medical interventions (4).

In Turkey, the official expert institutions in medical malpractice cases are the higher health council, council of forensic medicine, forensic medicine, other related departments of the universities, and the honor boards of medical chambers (6). The identification of the fault and its severity are within the jurisdiction of the court (3). Judges frequently request medical expert's reports from forensic medicine institutions to make a decision, and medical experts evaluate the following (5):

- Are there any faults on the side of the healthcare professionals who intervene in the patient's diagnosis, treatment, and subsequent processes? (Is there a deviation in the standard of care? Is there a relationship with the harm? Is there a relationship between the harm and negligence? Is the situation a complication or malpractice? If the situation is a complication, was it diagnosed on time and was the correct treatment applied?)
- Is there any scientific basis for the patient's claims?
- If there was a service defect, what were the defects? (Detection of the defect rate)
- Did the patient become disabled? If he/she became disabled, was this situation caused by the procedure/treatment process? (They take into consideration the elucidations before and after the procedure, procedure performed, and (if any) negligence.)
- If the performed procedure/treatment caused a disability, what extent is the patient's disability?
- Is this situation permanent or temporary?
- If it is temporary, what is the estimated duration and does the patient need a care giver?
- What are the autopsy findings, if any?

The medical expert's evaluation report consists of the following parts:

- Evaluation of medical documents: These documents should contain the notes stating the patient's complaint, history, background, and purpose of the treatment was performed. Results of the laboratory and culture tests and reports of the radiological examinations and interventional procedures (such as surgery) must be documented (e.g., radiology and operative reports). The clinical condition of the patient on admission and his/her clinical course during hospitalization must be noted. If the patient was discharged, his/her condition during discharge (pre-discharge examination), how his/her discharge was planned, and with which medications he/she was discharged with must be stated in the medical documents.
- Evaluation of legal documents: In these documents, the situation or incident that occurred is usually explained by a lawyer, sometimes in an exaggerated language, and there may be even sentences containing unjust accusations and false medical evaluations. For example, the documents may mention that some blood was taken from the patient, a drain-catheter was inserted, he/she received dialysis, he/she was exposed to radiation from radiological

imaging, and some injections and sutures were applied. In addition, there may be allegations that his/her body integrity was damaged, he/she was put to sleep in a coma, and he/she faced death. It may be claimed that the patient handed herself/himself over to the physician by relying on the verbal information of the physician and was not informed about his/her experiences. It may be alleged that the patient was physically and mentally harmed, his/her peace environment and the psychology of the whole family was disturbed, his/her family order was altered, his/her economic future was shaken, his/her sexual life ended, he/she became dependent on his wife/her husband and children, his/her family have collapsed economically, the treatment was wrong, there was a severe service defect, and the process was burdensome and unfair. There may be some expenses incurred by the patient (such as travel expenses, fuel expenses), and the amount is requested for material compensation.

- Clinical examination: The incident was based on the account of the patient and his/her relatives, and anamnesis was taken, and the patient was examined by the medical expert.
- Medical evaluation: At this stage, the indication, type, stages of the treatment applied, post-treatment applications, and literature evaluation (in terms of complications/malpractice) are made.
- Conclusion: At this stage, a decision is made by taking into consideration the patient's examination, relevant documents and evidence, and medical literature research. For example, whether the indication of the intervention/surgery is correct, whether the appropriate and multidisciplinary management of the complications is carried out timely, whether the patient's follow-up was done properly after his/her discharge may be stated.

If the court decides that the physician is at fault, four legal processes can be performed simultaneously in Turkey. The physician may be sentenced to imprisonment by the criminal court. The civil court may decide to payment of material and moral indemnities. The physician may be ostracized from the profession for a time by the Turkish Medical Association High Honor Board. If the physician is a public official, disciplinary action may also be imposed (7).

## ■ CONCLUSION

For a legal process in case of a probable complication or malpractice event in medical practice, the informed consent form, medical documents, and digital records in the patient file are very important material evidence. With all that, if the physician makes the right diagnosis to the right patient based on current and modern methodology and international guidelines and tries to fix the complications arising during the treatment process under the light of these modern principles and multidisciplinary approach, he/she will have fulfilled the responsibility of his/her profession. The responsibilities of a physician include being aware of the possible complications that may occur during interventions, taking the necessary

precautions for complications, and applying appropriate treatment in medical science if an unforeseen complication has developed. While doing all these, the most important point that should not be forgotten is complete record keeping. Knowing our legal responsibilities as physicians and acting in accordance with them will ensure that future medicolegal problems remain at a minimum level.

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