Assessment of cases with medical malpractice claims which’s autopsies were performed in Council of Forensic Medicine İzmir Group Chairmanship between 2010-2014

Burçin Gürbeden1,*, Erdem Özkara2

Abstract: Background. In our study, taking attention to the importance of forensic medicine education of physicians is aimed by assessment of characteristics of cases involving malpractice claims which’s autopsies were performed, examining the quality of performed autopsies, also examining the cases which’s death certificates were edited by physicians without not making any notification to the authorities although these cases were got a judicial nature.

Methods. In the cases which’s autopsies were performed between 01.01.2010-31.12.2014 in Council of Forensic Medicine İzmir Group Chairmanship, the characteristics of the cases involving medical malpractice claims and the cases which’s death certificates were edited without making any notification to the authorities although they had a judicial nature due to the falling within the scope of medical malpractice then which’s graves were opened were assessed. While assessing the autopsy quality of cases involving an allegedly medical malpractice, autopsy reports were evaluated based on the guideline recommended by the European Academy of Legal Medicine (EALM). Statistical Package for the Social Sciences (SPSS) 22.0 programme was used for the statistical analyses.

Results. 1.53% (n=146) of 9543 cases were autopsied at Council of Forensic Medicine İzmir Group Chairmanship between 2010 and 2014 due to allegedly medical malpractice. 56.8% (n=83) of these cases were male, and their mean age was 38.30 ± 26.41. When the departments of physicians that allegedly malpracticed were evaluated, it was found that most commonly reported departments were Emergency Medicine (19.9%), Gynecology and Obstetrics (16.0%). During these five years, 45 cases were autopsied after exhumation and it was found that 37.8% (n=17) of these were not reported to competent authorities even though these were forensic cases.

Conclusion. When our study is compared to other similar studies from Turkey, it was seen that there was a remarkable increase in the number of autopsied cases due to allegedly medical malpractice by 4,3 times compared to 10 years ago. We recommend that a guideline for standardizing autopsies, which are the most effective method for enlightening the allegations, is necessary on Turkey’s own terms. Also, we believe that physicians’ education programs regarding management of forensic cases should be improved.

Key Words: forensic medicine, medical malpractice, autopsy, standardization, forensic case.

BACKGROUND

Medical malpractices have recently been discussed more often; due to the rapid and fast changes in Turkish healthcare system. Healthcare professionals’ and patients’ approaches to this issue are quite different. Malpractices are generally a matter of all professions. Because revealing the malpractice is hard, a tendency to evaluate the out-of-spec practices have emerged. Generally, out-of-spec practices are described as ‘not paying standard attention and displaying standard skills’. In fact, malpractice is defined as ‘doing harm to a person due to a professional’s practice without knowledge and skill that is essential under all circumstances’ in legal
dictionary (Black’s law dictionary). Turkish Medical Association’s Medical Ethics Rules of Medicines’ 13th clause defines medical malpractice as ‘a patient getting harmed due to lack of knowledge, experience or interest’ [1, 2].

Medical malpractices are also discussed in several European countries and United States of America (USA) with multidimensional approach. Recently, a study from USA reported that from 210,000 to 440,000 people die each year due to medical malpractices [3]. Another study found that 2000 medical malpractices are filed a charge against in Belgium every year, 20% of these malpractices are submitted to the jurisdiction and 17% of these are resulted in compensation penalty [4]. In Turkey, usually Supreme Council of Health (SCH), Council of Forensic Medicine (CFM), university hospitals or medical chambers are consulted for expert appraisals of medical malpractices. When data collected from these institutions are investigated, it is seen that number of medical malpractice cases are growing in Turkey, like many other countries [5-8]. Researches from Turkey show that doctors tend to perform defensive medicine and less likely to choose specialties that are prone to medical malpractice [9-12]. Thus, multidimensional approach to this issue is important for the quality of medical practices and healthcare services.

Autopsy becomes more of an issue in allegedly medical malpractice cases resulting in death. Lacking or wrong autopsy findings may effect the court decision. This raises the question about the quality of autopsies and the necessity of a standardised autopsy protocol. For a qualified autopsy, qualification of the environment, tools, doctor and his/her performance are of importance and needed [13]. Several autopsy protocols and guidelines are created for standardizing autopsies [14-20]. Numerous authors have developed evaluation methods for autopsies of allegedly medical malpractice cases, aiming to standardise autopsies, reduce mistakes and diagnose correctly, using these protocols and guidelines [21-24].

Doctors are obligated to confirm death and prepare a death certificate when they encounter with death. Not reporting forensic deaths to competent authorities are also medical malpractices that may cause serious outcomes.

The aim of this study is to evaluate the characteristics and quality of autopsies of allegedly medical malpractice cases, draw attention to the need for a guideline to standardise autopsies, and to contribute to scientific arguments with recent data regarding these cases. Also, it is aimed to draw attention to lack of education regarding forensic medicine with forensic deaths with characteristics of cases which have death certificates and have not been reported by doctors to competent authorities.

METHODS

In our study, autopsies of allegedly medical malpractice cases and official corpse examination reports and autopsy reports of certificated forensic deaths due to medical malpractice that are not reported to competent authorities and are exhumed later in five years between 01/01/2010 and 31/12/2014.

After obtaining ethical permission from Dokuz Eylul University’s Faculty of Medicine and Council of Forensic Medicine, Morgue Department of the Council of Forensic Medicine İzmir Group Chairmanship’s archives were run through. 146 autopsies with allegedly medical malpractice cases were determined and included in the study. For evaluation of the quality of autopsies, guideline recommended by EALM was used while going through the autopsy reports [22]. In addition, 17 other certificated forensic deaths due to medical malpractice that are not reported to competent authorities and exhumed later, were also included and evaluated in our study.

Since all of the autopsies included in our study were forensic autopsies, “forensic autopsy” term was substituted shortly with the term “autopsy”. All data were analysed using SPSS ver 22.0.

RESULTS

Number of autopsies took place in the Council of Forensic Medicine İzmir Group Chairmanship between 2010 and 2014 was 9543 in total, and 146 of these were allegedly medical malpractice cases. Cases’ distribution by years are shown in Diagram 1.

56.8% of the cases were male (n=83) and 42.5% of them were female (n=62). Because one of the cases (0.7%) was deceased in fetal period and autopsied after exhumation, its proper genital examination was not possible and its sex was not specified in the autopsy report.

When the medical establishments that these cases first applied and that the allegedly medical malpractice took place were evaluated, it was found that most reported medical establishments were state hospitals (44.5%), followed by private hospitals (19.2%).

Diagram 1. Cases’ distribution by years.
When the medical departments that these cases first applied and that the allegedly medical malpractice took place were evaluated, it was found that most reported medical department was emergency room (47.3%).

When the alleged mistakes reported by claimants in allegedly medical malpractice cases were looked into, it was found that most alleged mistake was mistakes regarding treatment with a rate of 47.3% (n=69). Distribution of alleged mistakes reported by claimants are shown in Table 1.

When the professions of medical staff that was responsible of the allegedly medical malpractice were evaluated, it was found that most reported profession was medical doctors with a rate of 78.5% (n=139).

When the specialties of medical doctors that was responsible of the allegedly medical malpractice were evaluated, most reported speciality was emergency medicine with 36 cases (19.9%), followed by obstetrics and gynecology with 29 cases (16%), anesthesiology and reanimation with 17 cases (9.4%), general surgery with 15 cases (8.3%) and pediatrics with 8 cases (4.4%), respectively.

When the autopsy reports were evaluated whether the cause of death was specified or not, 84.9% of the cases (n=124) did not involve any specific cause of death and these were referred to the Forensic Medicine Institution Presidency. One of the cases was decided as ‘not involving a medical malpractice’, and other 145 cases were not decided whether they involved any medical malpractice or not. 144 of these 145 cases’ files were determined to be referred to Forensic Medicine Institution Presidency and one case’s file was determined to be referred to the Supreme Council of Health.

When one of the parameters that are presented in the guideline recommended by EALM, examination of medical records during the autopsy, was evaluated, it was found that 44.5% (n=65) of all cases’ medical records were examined during the autopsy. Distribution of the examination of medical records during the autopsies are presented in Table 3.

When another parameter that is presented in the guideline recommended by EALM, applying to a consulting physician when necessary, was evaluated, it was found that 16 of all cases (11%) involved application to a consulting physician. Also, within 37 cases that underwent surgery, 8 of them (21.6%) involved consultation, 28 of them (75.7%) did not involve consultation, and one of them (2.7%) did not require any consultation. This one case was later exhumed. Diagram 2 shows distribution of applications to a consulting physician when necessary.

### Table 1. Distribution of alleged mistakes reported by claimants

<table>
<thead>
<tr>
<th>Allegation</th>
<th>Number of Cases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mistakes regarding informed consent</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Mistakes regarding diagnosis</td>
<td>12</td>
<td>8.2</td>
</tr>
<tr>
<td>Mistakes regarding treatment</td>
<td>69</td>
<td>47.3</td>
</tr>
<tr>
<td>Mistakes regarding follow-up</td>
<td>5</td>
<td>3.4</td>
</tr>
<tr>
<td>Mistakes regarding referral</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Mistakes regarding diagnosis and treatment</td>
<td>6</td>
<td>4.1</td>
</tr>
<tr>
<td>Mistakes regarding diagnosis and referral</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Mistakes regarding treatment and follow-up</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Suspicion of medical malpractice</td>
<td>32</td>
<td>21.9</td>
</tr>
<tr>
<td>Mistakes regarding injections</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Mistakes caused by anesthesia</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Other mistakes</td>
<td>9</td>
<td>6.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>146</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### Table 2. Distribution of professions of medical staff that was responsible of the allegedly medical malpractice *

<table>
<thead>
<tr>
<th>Profession</th>
<th>Number of Cases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Doctors</td>
<td>139</td>
<td>78.5</td>
</tr>
<tr>
<td>Medical Assistant – Health Technician</td>
<td>15</td>
<td>8.5</td>
</tr>
<tr>
<td>Nurse</td>
<td>12</td>
<td>6.8</td>
</tr>
<tr>
<td>Hospital Administration Staff</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>Midwife</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>Other professions</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>Unclassified</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>177</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Even though the total number of cases is 146, because some cases included more than one medical staff with different professions, total number is presented as 177.

### Table 3. Distribution of the examination of medical records during the autopsies

<table>
<thead>
<tr>
<th>Examination state of medical records during the autopsy</th>
<th>Number of Cases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examined</td>
<td>65</td>
<td>44.5</td>
</tr>
<tr>
<td>Partly examined</td>
<td>47</td>
<td>32.2</td>
</tr>
<tr>
<td>Not examined</td>
<td>34</td>
<td>23.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>146</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
When another parameter that is presented in the guideline recommended by EALM, presence of medical materials in autopsy, was evaluated, it was found that 81.5% of the cases (n=119) had no medical materials present, and 18.5% (n=27) of them had a medical material present and examined. Diagram 3 shows distribution of presence of medical materials in autopsy cases.

It was found that 17 of 45 cases (37.8%) which were autopsied after exhumation were not reported to competent authorities by physicians, and directly inhumed, even though these were forensic cases. When these cases’ distribution was evaluated, it was found that traffic accident cases had the highest number of exhumation. It was also found that relatives of two of these cases pressed charges against the physicians who gave rise to exhumation. Diagram 4 shows distribution of exhumed forensic cases.

**DISCUSSION**

In our study, number of cases autopsied cases between 2010 and 2014 in CFM Izmir Group Chairmanship was determined as 146. Pakiş’s study found that the number of autopsied cases due to allegedly medical malpractices, which were investigated by CFM’s 1st and 3rd Specialized Boards, was 375, and 34 of them were autopsied in Izmir [25]. When these five-year periods are compared, 4.3-fold increase could be seen in the number of cases autopsied due to allegedly medical malpractices raised in Izmir.

Distribution of medical establishments that the allegedly medical malpractice took place is of great importance, and is helpful to shed light on this issue. Pakiş’s and Algan’s thesis studies state that most reported medical establishments that an allegedly medical malpractice took place were state hospitals, followed by private hospitals [25, 26]. Gündoğmuş et al. study evaluated medical malpractice cases from SCH and found that the most reported medical establishments that an allegedly medical malpractice took place were public institutions (42.4%) were also state hospitals [27]. Di Nunno et al. study, which was conducted in Italy, found that 88% of institutions that allegedly medical malpractice cases took place were public institutions and 12% of them were private institutions [28]. Likewise, we found that most reported medical establishments that an allegedly medical malpractice took place were state hospitals (44.5%), followed by private hospitals (19.2%). State hospitals being in the first rank could be explained by overcrowded clinics, less time for examining a patient, number of state hospitals being greater than other healthcare facilities, lack of technical equipment, and so on. Also, patients paying for their care in private hospitals and having a higher expectation for the healthcare they receive might be a cause for increasing their tendency to allege medical malpractices.

Medical departments that the allegedly medical malpractice took place is also important, and varies between patients that are looked after. In Turkey, surgical departments are the most reported departments that allegedly medical malpractices take place [7, 25]. Li et al. reported that patients that underwent surgery often struggle with severe diseases, and that surgical departments are at higher risk of medical malpractice [29]. In our study, number of cases that underwent surgery (25.3%) is higher than cases that only got medication (21.9%). This shows parallelism with the idea of more charges being filed against surgical allegedly malpractice
When we evaluated the medical departments that these cases first applied and that the allegedly medical malpractice took place, we found that most reported medical department was emergency room (47.3%). Likewise, Özkaya's thesis study reported that emergency rooms had the highest number of allegedly medical malpractice cases [5]. This could be linked to several problems in Turkey; i.e. the increasing number of consultations to emergency rooms, increasing number of patients that are not seriously ill consulting to emergency rooms, lack of time for examinations, long hours of shifts, problems regarding consultation and referrals, and lack of medical staff, technical equipment, medicine and/or medical materials.

Since medical practices include various topics, such as diagnosis, treatment and follow-up, types of medical malpractices may also vary. Wänzel et al. reported that 72% of the medical malpractice cases they investigated included mistakes regarding treatment and 28% included mistakes regarding diagnosis (30). Can et al. evaluated allegedly medical malpractice cases that were submitted to the court and adjudicated through the expert reports of SCH and/or CFM, and found that 47% of these cases were linked to mistakes regarding treatment, resembling our findings [31]. A study from the USA evaluated allegedly medical malpractice cases from a 25-year period between 1986 and 2010, and found that two most common causes were mistakes regarding diagnosis (28.6%) and treatment (27.2%) [32]. As we found that the most alleged mistake was mistakes regarding treatment with a rate of 47.3%, this seems similar to the literature.

When the professions of medical staff that are responsible of the allegedly medical malpractice are evaluated, it is usually found that most reported profession is doctors, even though it may vary from procedure to procedure. Yet, rates of being reported among doctors, nurses and other health staff varies as well. Pakiş's thesis study, it was reported that medical staff which allegedly malpracticed the most were doctors, with a rate of 96.4% [25]. Likewise, in Algan's thesis study, it was reported that medical staff which allegedly malpracticed the most were doctors, with a rate of 84.2% [26]. Wallensten reported that he encountered almost 3000 medical malpractice cases every year in Sweden, 70% of these cases were reported to be linked to doctors, and 30% of them were linked to dentists, nurses and other medical staff [33]. In our study, we found that most reported profession was medical doctors with a rate of 78.5%, followed by medical assistants and health technicians (8.5%) and nurses (6.8%). Even though the concept of medical malpractice includes every medical profession, it is clear that the most reported profession for medical malpractices is doctors. Pakiş and Algan's studies show that rates of alleges regarding medical malpractices caused by medical staff other than doctors are increasing. Thus, we believe that medical staff other than doctors need to be educated about their professional and legal rights, responsibilities and the concept of malpractice. We also believe that in order to provide people with quality health service, competent healthcare professionals' well communication and cooperation for teamwork is essential.

Rates of filed charges against allegedly medical malpractices depending on specialties may vary and differ by countries and health policies. In USA, a recent study evaluated National Practitioner Data Bank's (NPDB) data, and found that internists, obstetricians and gynecologists, and general surgeons had the highest risk of medical malpractice [34]. Madea and Preuss from Germany evaluated autopsy reports of 4450 allegedly medical malpractice cases and the responsible doctors' specialties, and reported that surgical specialties were at the top ranks and emergency medicine was at fourth rank [35]. In Turkey, Yazıcı et al. also evaluated the same distribution, and found that general surgery and obstetrics and gynecology were at the top ranks, and anesthesiology and reanimation was at fifth rank [7]. In our study, most reported specialty was emergency medicine (19.9%), followed by obstetrics and gynecology (16%), anesthesiology and reanimation (9.4%) and general surgery (8.3%), respectively. These data are consistent with the literature, and also consistent with another finding of our study, that emergency room is the most reported department medical department that the allegedly medical malpractices took place. Even though we could not obtain data regarding emergency doctors' speciality status, we believe that lack of emergency medicine specialist and thus, practitioners being overwhelmed by heavy responsibilities of seriously ill patients themselves; alongside of working conditions of emergency rooms in Turkey.

Increase in medical malpractice lawsuits also affects Turkish physicians' choices of speciality and increase their tendency to perform defensive medicine. It is striking that some authors defined the term "medical malpractice stress syndrome" and evaluated this issue (36). We found that most allegedly malpracticing departments are emergency medicine, obstetrics and gynecology, anesthesiology and reanimation, and general surgery. It has also been shown in various studies from Turkey that base exam points required for specialising in these departments have strikingly decreased [12, 37]. It is reported in another study from Turkey that none of the top 100 physicians that scored the highest marks in Turkish national medical speciality exam chose these departments for specialization [38]. This indicates that Turkish physicians tend to avoid from choosing medical departments that are at under high risk of malpractice lawsuits.

Autopsy is still considered as an extremely effective method for clarifying allegedly medical malpractices. Various classifications have been developed.
for comparing clinical diagnosis with diagnosis obtained with autopsy. In 1983, Goldman et al. proposed a practical classification to classify inconsistencies between clinical diagnosis and autopsy findings [39]. Battle et al. improved and updated this classification in 1987 [40]. Thereafter, many studies benefited from these two classifications [41-43]. When we evaluated the presence of cause of death in autopsy reports, we found that only 15.1% (n=22) had a specified cause of death and other 124 cases' (84.9%) files were all referred to CFM. Since we could not reach to these 124 cases' final autopsy reports, these classifications that are recommended in the literature could not be used in our study. This was considered as a limitation of our study.

Autopsy is important for clarifying allegedly medical malpractices, yet, because of the complexity of the cases, autopsies aiming at the medical malpractice should be preferred rather than standard autopsy protocols. Autopsies of allegedly medical malpractice cases is crucial for finding out the facts and protection of doctors. In Turkey, a study of CFM including cases from general surgery departments showed that if the clinical diagnosis was confirmed with autopsy, rates of medical malpractice sentences were significantly more likely to decrease [44]. For standardisation of autopsies, numerous protocols and guidelines have been developed [14-20]. Several studies aimed to use these protocols and guidelines to develop an evaluation method for allegedly medical malpractice cases, thus to avoid from mistakes and to diagnose correctly [21-24]. In our study, cases' autopsy reports were evaluated in the light of the guideline recommended by EALM [22]. It has been observed that generally, standard procedures for autopsies of allegedly medical malpractice cases should be improved.

Autopsy gives more reliable outcomes if the deceased's medical records are also examined. Examination of medical records during the autopsies of allegedly medical malpractice cases is quite important. In the guideline recommended by EALM, it is emphasized that all medical records should be examined in detail during the autopsies of allegedly medical malpractice cases and if any consultation is required, a specialist from the relevant department should be consulted to [22]. In Turkey, CFM reports that all medical records are included in the necessary materials and reports of allegedly medical malpractice cases [45]. Tawadros et al. reported that examination of all medical records and consultations (if necessary) during the autopsies of allegedly medical malpractice cases provides valuable information about the case [46]. In our study, medical reports were evaluated in 44.5% (n=65) of the cases, partly evaluated in 32.2% (n=47) of the cases, and not evaluated in 23.3% (n=34) of the cases. We believe that problems regarding obtaining the medical records affected the number of cases that were partly evaluated and not evaluated. It was also found that 11% (n=16) of the cases were consulted to a consulting physician in our study. We believe that autopsies not being performed in a hospital setting and thus not being able to easily consult these cases may have affected the rates of consultations before or during the autopsies. Madea reported that an experienced surgeon should be present in autopsies of cases of death after certain surgical procedures [23]. In our study, eight of the 37 cases that underwent surgery (21.6%) were consulted, 28 of them (75.7%) were not consulted, an one of them (2.7%) had no need for a consultation. These findings were interpreted as forensic medicine specialists feel more need for consulting to a relevant surgeon during the autopsies of death cases occurred after a surgical operation.

Examination of present medical materials during the autopsy is also quite important. In the guideline recommended by EALM, it is reported that all medical materials present should be examined in detail, an the doctor who would perform the autopsy should inform the hospital which the allegedly medical malpractice took place that medical materials should not be removed from the body [22]. Likewise, several researches also recommended that all medical materials that are present on the corpse should be examined in detail [21, 23]. In our study, we found that 81.5% (n=119) of the cases did not have any medical material on the corpse, and 18.5% (n=27) of them had medical material(s), which were examined and reported. These findings indicate that informing all doctors that the corpse should be referred for autopsy with all medical materials present would be quite useful.

Notice of forensic cases is one of the principal responsibilities of physicians, yet carelessness regarding this issue could also become a medical malpractice. Not noticing the competent authorities in time affects the enlightenment of the case negatively. While preparing a death certificate, doctor's most important duty is to officially diagnose the death and to decide if the death was natural or forensic. Not noticing the competent authorities about forensic death cases is a malpractice that causes various problems. These problems include exhumation for autopsy as well. In our study, 45 cases were autopsied after exhumation, and 17 of them (37.8%) were not reported to judicial authorities and inhumed, even though these were forensic cases. Most of the forensic cases that were not reported to judicial authorities were traffic accident cases with a rate of 58.8% (n=10). Also, relatives of two of the cases that were involved in a traffic accident pressed charges against the doctors for causing exhumation. In the literature, most of the forensic cases that were exhumed are traffic accident cases [47, 48]. Demirci et al. reported that most common cause of exhumation of forensic cases was inhumation of the corpse without noticing the competent authorities about the forensic case [49]. As 37.8% of the exhumed cases in our study were forensic cases, we believe that doctors

Romanian Journal of Legal Medicine
Vol. XXVI, No 2(2018)

117
responsible from these cases had inadequacies. It is also believed that one of the most important causes of these problems coming to life is doctors’ lack of knowledge regarding these issues. 62% of doctors from Antalya province, 66% of doctors from Kocaeli province, 73.8% of doctors from Izmir province and 80% of doctors from Konya province stated that they believe they received inadequate education regarding forensic medicine [50-53]. Because the number of forensic medicine specialists is short in Turkey, other doctors who are in charge of forensic medicine services should be educated before and after graduation about forensic medicine, and the medical curriculum should be updated accordingly. When the legal problems that doctors might face are taken into account, forensic medicine should take a larger part in in-service trainings. We also believe that forensic medicine specialists that work at universities’ departments of forensic medicine, CFM group chairmanship and branch offices should support all doctors’ education process that work in the same area with themselves.

CONCLUSION

We believe that it might be useful to collect all data regarding medical malpractice cases in a nationwide database and to analyse all these data attentively. This database would also be important for being a data source for further researches, leading legal regulations and health policies, insurance companies arranging insurance charges for professional indemnity insurances justly, and for re-evaluating the educational programmes for doctors.

Various data from the medical literature show that autopsy is a very important method for enlightening the medical malpractice cases that resulted in death. Thus, autopsies of these cases should be standardised. For the standardisation of autopsies, numerous autopsy protocols and guidelines have been developed in various centres worldwide. We believe that developing a guideline in Turkey by evaluating these protocols and guidelines is also of great importance for reducing error rates and to diagnose correctly. When the high rates of exhumed forensic cases is taken into account, the importance of education regarding forensic medicine before and after graduation from medical school is shown one again with this study.

Conflict of interest. The authors declare that there is no conflict of interest.

Acknowledgement. With special thanks to Assoc. Prof. Dr. İ. Özgür Can, Resident Dr. Gökçe Karaman from Dökuz Eylül University’s Department of Forensic Medicine and Forensic Medicine Specialist Dr. Devrim Sertaç Özkaran from CFM Ardahan Branch Directorate, for their help while collecting and evaluating the data of our study.

References


45. Pakiş İ. Ölüm ya da doğumla sonuçlanan tibbi uygulama hatalarına yaklaşımda adlı otopsinin rolü, Doktora Tezi, Marmara Üniversitesi Sağlık Bilimleri Enstitüsü Adli Tıp Anabilim Dalı; İstanbul: 2006.


