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EVALUATION OF ALLEGED MALPRACTICE DUE TO AESTHETIC AND COSMETIC INTERVENTIONS AND MEDICAL APPLICATIONS

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Abstract

Technological developments resulted in significant improvements in cosmetic surgery variability which causes increase at demand and expenses for cosmetic surgeries. Concordantly medical malpractice claims increased as well in recent years. 134 cases referred to the Council of Forensic Medicine with the claim of malpractice which related aesthetic and cosmetic procedures are included in this study. The number of malpractice cases evaluated in the 3rd Board of the Council between the years 2007-2011 was 306. 38 of the cases were male, 96 were female and the mean age was 32.83 ± 12.11 . The majority of the cases were treated in Private Hospitals. (47%). Presence of medical malpractice was concluded in 29 cases (%21.6), whereas %12 of the cases (n=17%) remained inconclusive for various reasons. Among the cases which have been applied cosmetic procedure more than one body zone, the ratio of been concluded as

“malpractice positive” were statistically significantly higher than the “malpractice negative” group ($p<0.05$). Mean age of the group “malpractice positive” was statistically significantly lower than the group “malpractice negative” ($p<0.01$). In conclusion, young cases and the cases which have been applied cosmetic procedure more than one body zone, was concluded as medical malpractices by the 3rd Boards of the Council statistically significant. Despite there are no statistically significant differences, it has been determined that most of the cases have been applied cosmetic procedure in private hospitals. We recommend that it will be useful to investigate the cause of this situation, and if necessary to increase the control of the private hospitals by the Ministry of Health.

Key Words: Forensic medicine, Council of forensic medicine, Aesthetic, Cosmetic, Malpractice

Özet

Gelişen teknolojiler doğrultusunda estetik ve kozmetik girişimlerde yeni teknikler gelişmesi sebebiyle, girişim miktarında ve talebinde artış izlenmektedir. Buna bağlı olarak son yıllarda tıbbi uygulama hatası iddialarında belirgin artış izlenmektedir. Çalışmada Adli Tıp Kurumu 3. İhtisas Kurulu'nca 2007-2011 yılları arasında görüş bildirilen estetik ve kozmetik girişimler ile ilgili tıbbi uygulama hatası iddiası bulunan 134 olgu incelenmiştir. Olguların 38'i erkek, 96'sı kadın, yaş ortalaması ise 39.5 ± 1.2 idi. Olguların büyük çoğunluğuna Özel Hastanelerde girişim uygulanmıştı (47%). Olguların 29'una (%21.6) kusur verilmiş olup, 17'si (%12) hakkında çeşitli sebeplerle görüş bildirilememiştir. Kusur bulunan gruptaki girişim bölgesi çoklu olanlar kusur bulunmayan gruptan istatistiksel olarak anlamlı şekilde yüksek saptanmıştır ($p<0.05$). Kusur bulunan grubun yaş ortalaması kusur bulunmayan gruptan istatistiksel olarak anlamlı şekilde düşük saptanmıştır ($p<0.01$). Çalışmamızda 3.ATİK'in genç olgularda ve yine aynı şekilde birden fazla bölgeye girişim uygulanan olgularda kusur verme eğiliminin anlamlı şekilde yüksek olduğunu saptadık. Her ne kadar istatistiksel açıdan anlamlı bir farklılık bulunmasa da en çok olgunun özel hastanelerden geldiği tespit edilmiştir. Bu yüzden Sağlık Bakanlığı tarafından bunun nedenlerinin araştırılması ve gerekli görüldüğü takdirde denetimlerin artırılmasının yararlı olabileceği düşüncesindeyiz.

Anahtar Kelimeler: Adli Tıp, Adli Tıp Kurumu, Estetik, Kozmetik, Malpraktis.

1. Introduction

In Turkey, as in other countries, there has been an increase in the expenditures made for cosmetic purposes with the increase in the expenditures made for therapeutic and preventive health services recently. Accordingly, with the development of new surgical techniques and instruments, there has been a parallel increase in the variety of aesthetic cosmetic interventions (Akin, 2007; Wimalawansa et al., 2009). Another dimension of this technological development and the increase in societal demand, especially for interventions without mandatory medical indications, is the increase in claims of medical malpractice during and after surgical, medical or aesthetic interventions (Rossello, 2008). Complications that may even result in death are encountered as a result of cosmetic procedures such as solarium, which can be applied not only by surgical interventions and medical applications by physicians, but also by non-physicians (Sever, 2011).

Aesthetic and cosmetic interventions; in addition to surgical intervention or medical applications for the correction of trauma, burns, congenital or subsequent deformities, and even the shape of any organ that the person is uncomfortable with, operations such as epilation, chemical hair color change, hair prosthesis bonding, etc. covers. For this reason, the aesthetic and cosmetic procedures performed on the human body, which are the subject of this study, can be performed by specialist physicians from different fields of medicine such as plastic surgery, dermatology, otolaryngology, ophthalmology, and sometimes by non-healthcare professionals such as beauticians and hairdressers (Hotun Şahin et al., 2009). Undesirable results that may occur with these attempts and practices are of interest to Forensic Medicine as they can be the subject of both civil lawsuits and forensic investigations.

The case files sent from almost all regions of Turkey for the purpose of obtaining official expert opinion are examined by the relevant board and, if deemed necessary, the decision is made after the examination of the persons and the elimination of the deficiencies in the file (Adli Tıp Kurumu Kanunu, 1982). In this study, 134 forensic reports on aesthetic and cosmetic interventions, which were decided by the Third Specialization Board of the Council of Forensic Medicine, were evaluated between 2007 and 2011. The main purpose of our evaluations is to evaluate the places where the initiatives and practices that are the subject of the complaint took place, the lesions and

the qualifications of the people who apply it, based on the Third Specialization Board's approach to the case files.

2. Material and Methods

In the study, the reports of 134 cases with claims of medical malpractice related to aesthetic and cosmetic interventions and medical applications, whose opinion was given by the 3rd Specialization Board of the Council of Forensic Medicine between 2007 and 2011, were analysed retrospectively. While recording the data; subjects such as the age and gender of the cases at the time of the incident, the nature of the health workers/practitioners and health institutions complained of, the types of procedures, the origin of the incidents, the area of intervention and medical malpractice were examined.

The limitation of our study is that the retrospective study could only be carried out on a digitally recorded archive.

While evaluating the findings of the study, NCSS (Number Cruncher Statistical System) 2007&PASS (Power Analysis and Sample Size) 2008 Statistical Software (Utah, USA) program was used for statistical analysis. While evaluating the study data, Student's t test was used for comparison of normally distributed parameters between two groups in comparison of quantitative data as well as descriptive statistical methods (mean, standard deviation, median, frequency, ratio). Kruskal Wallis test was used for intergroup comparisons of non-normally distributed parameters. Continuity Correction (Yates) Chi-Square test and Fisher's Exact test were used to compare qualitative data. The results were evaluated at the 95% confidence interval and the significance level of $p < 0.05$.

3. Results and Discussion

The study was conducted with the reports of 134 cases, 96 (71.6%) females and 38 (28.4%) males, between 2007 and 2011. The ages of the cases ranged from 1 year to 68 years, with a mean of 32.83 ± 12.11 years.

When the distribution of institutions is examined; 10 (7.5%) cases were in state hospital, 7 (5.2%) cases were in E&R hospital, 33 (24.6%) cases were in private centers, 63 (47.0%) cases were in private hospitals, 21 (15.7%) case was also processed in the university hospital (Table 1).

Table 1. Evaluation Results

		n	%
Institution	State Hospital	10	7.5
	E&R Hospital*	7	5.2
	Private Center	33	2.6
	Private Hospital	63	47.0
	University	21	15.7
Trauma	Yes	23	17.2
	No	111	82.8
Intervention Area	Facial soft tissue	20	14.9
	Hair	6	4.5
	Breast	9	6.7
	Extremities	32	23.9
	Abdomen	7	5.2
	Genital	3	2.2
	Nose	22	16.4
	Multiple	35	26,1
Procedure type	Surgical	91	67.9
	Laser	20	14.9
	Medical	6	4.5
	Multiple	5	3.7
	Other	12	9.0
Applicator	Non-health	6	4.5
	Gen. Practitioner	12	9.0
	Plastic Surgery Sp.	79	59.0
	Dermatology Sp.	10	7.5
	Multiple	9	6.7
	Other	18	13.4
Fault	Inconclusive	17	12.7
	Yes	29	21.6
	No	88	65.7

*Education and Research Hospital

23 (17.2%) of the procedures performed are traumatic, and 111 (82.8%) are non-traumatic (Table 1).

When the intervention area is examined; facial soft tissues in 20 (14.9%) cases, hair in 6 (4.5%) cases, breast in 9 (6.7%) cases, extremities in 32 (23.9%) cases, and 7 (5.2%) cases abdomen, genitals in 3 (2.2%) cases, nose in 22 (16.4%) cases, and multiple regions in 35 (26.1%) cases.

When the transaction type is examined; It is seen that 91 (67.9%) surgical, 20 (14.9%) cases laser, 6 (4.5%) medical, 5 (3.7%) multiple procedures, and 12 (9%) other procedures are applied.

When the distribution of personnel performing the application is examined; non-health personnel in 6 (4.5%) cases, general practitioners in 12 (9%) cases, plastic surgeon in 79 (59%) cases, dermatologist in 10 (7.5%) cases, and more than one specialist in 9 (6.7%) cases, and 18 (13.4%) cases were applied by other personnel.

While no opinion could be given about 17 of the incidents (12.7%), fault was found in 29 (21.6%) and no fault was found in 88 (65.7%).

In the statistical evaluation made after the cases for which no opinion could be given were excluded from the evaluation; the mean age of the group with fault was found to be statistically significantly lower than the group without fault ($p < 0.01$).

In the statistical evaluation made after the cases for which no opinion could be given were excluded from the evaluation; the intervention area in the group with fault was found to be statistically significantly higher than the group without fault in those with multiple types ($p < 0.05$).

In the statistical evaluation made after the cases for which no opinion could be given were excluded from the evaluation; there is no statistically significant difference in the distribution of gender, institution, traumatic situation, intervention area, type of procedure and personnel performing it according to the fault status ($p > 0.05$).

There is a statistically significant difference between the procedure types by gender. Multiple procedure type was found to be statistically significantly higher in male cases than in females. ($p < 0.05$).

Age distribution according to the type of procedure does not show a statistically significant difference ($p > 0.05$).

The popularity of medical malpractice cases in Turkey is increasing day by day. Recently, there has been an increase in claims for medical malpractice in parallel with the increase in social demand for surgical, medical and aesthetic interventions that do not have a mandatory medical indication (Rossello, 2008). In a study conducted in Turkey covering 195 cases and covering the

years 1992-2002, it was noted that there was a continuous increase in the number of cases after 1999 (İnce et al., 2005). Similarly, there are many domestic and foreign publications pointing out that the number of cases applying to legal authorities regarding medical malpractice has increased over the years (Özkaya, 2008; Leflar, 2009; Özkaya et al., 2011).

Yorulmaz, in his doctoral thesis on the files covering the period between 1993 and 2003, which applied to the Istanbul Medical Chamber of Medicine Practice Office regarding medical malpractice, detected an increase of 42% in the number of cases from 1999 to 2003 (Yorulmaz, 2005).

The number and rate of undesirable conditions and complaints that occur due to surgical procedures and medical applications performed for aesthetic and cosmetic purposes can vary mainly according to time and place. In a previous study conducted in the General Assembly of the Council of Forensic Medicine, malpractice cases related to plastic and reconstructive surgery ranked 7th with 2.7%. The ranking according to this study is as follows. Obstetrics and gynaecology come first, followed by orthopaedics and traumatology, general surgery, anaesthesia and reanimation, and paediatric surgery specialties (Güzel et al., 2002).

According to a previous study conducted by the Istanbul Medical Chamber, plastic and reconstructive surgery cases are in the 2nd place (5.2%) in order of frequency among the cases who applied for medical negligence and/or error (Yorulmaz et al., 2006).

In another study, according to the data of the Supreme Health Council, plastic surgery ranks 9th with 2.2% (Tümer, 2002).

In one study, when the medical malpractice files, which were decided in the Supreme Court, were evaluated in terms of specialization, it was noteworthy that there was no case concerning plastic and reconstructive surgery or dermatology (Can et al., 2011).

The distribution of men and women in medical malpractice cases varies considerably due to different reasons. In a post-mortem study, 185 (60.46%) of the cases were male and 121 (39.54%) were female (Algan, 2012). Again, in a study conducted in the field of orthopaedics, 36 of the cases were male and eight were female (mean age 32; range 1-78), and 10 of them were in the paediatric age group (11 years and under) (Sönmez et al., 2009). Again, in a study related to surgical malpractice cases conducted in the USA, the number of female cases was found to be significantly higher (62%) than males (Orosco et al., 2012). In another study conducted with 25 cases in the field of urology, it was determined that 16 of the cases were women and the mean age

was 51.4 (Duty et al., 2012). Of the 134 cases included in our study, 96 (71.6%) were female and 38 (28.4%) were male. The ages of the cases ranged from 1 year to 68 years, with a mean of 32.83 ± 12.11 years. We think that the reason why the female patient group is significantly higher in our cases is due to the fact that the aesthetic and cosmetic interventions that constitute our subject are mostly demanded by women.

The places where medical malpractice cases are experienced intensively may differ from region to region and at different times. In a study conducted in Istanbul, it was stated that most of the cases came from State Hospitals (40.1%) (Büken, 2002). In our study, when the distribution of the complaint subject to the institution is examined; 10 (7.5%) cases in a public hospital, 7 (5.2%) cases in a education and research hospital, 33 (24.6%) cases in a private center, 63 (47.0%) cases in a private hospital, 21 (15.7%) cases was also treated at the university hospital. When the effect of medical malpractice cases on the presence or absence of trauma in the origin of medical malpractice cases was evaluated, there was no statistically significant result in our study.

In aesthetic and cosmetic applications, dermatology specialists as well as plastic and reconstructive surgeons are complaining quite a lot. In our study, it ranks 4th with a rate of 7.5%. In our study, there was no significant difference in terms of whether dermatology cases were found to be fault or not. According to a study, dermatology malpractices were ranked sixth from the last among 23 different branches. In the same study, it is mentioned that physicians who use x-ray and/or apply cosmetic procedures are more likely to complain (Binder, 1979).

In another study originating from the United States, it was stated that only 1.1% of 239,756 cases of medical malpractice claim cases were related to dermatologists. Among these cases, surgical interventions in the form of removing a lesion from the skin are reported to be the most common complaint (Moshell et al., 2012).

In our study, it was also examined which parts of the bodies of the cases were treated or not. Although the cases were mostly treated from multiple regions, the extremities and nose were found to be quite common. In a study evaluating medical malpractice cases faced by otolaryngologists, in parallel with our study, it is noted that rhinoplasty is the intervention with the most complaints (Svider et al., 2013). In a study conducted in Australia, it is noted that liposuction, breast augmentation operations, face/neck lift operations, eye/eyebrow lift

operations and rhinoplasty/septoplasty operations constitute 70% of all cases among surgical cosmetic procedures with complaints of medical malpractice (Bismark et al., 2012).

When the type of procedure is examined, in our cases; it is seen that 91 (67.9%) surgical, 20 (14.9%) cases laser, 6 (4.5%) medical, 5 (3.7%) multiple procedures, and 12 (9%) other procedures are applied (Table 2 and 3).

Table 2. Evaluations by Fault Condition

		Fault		p
		Yes	No	
Age m±SD		26,90±10,83	34,52±12,13	10,003**
Gender n (%)	Female	18 (%62,1)	64 (%72,7)	20,393
	Male	11 (%37,9)	24 (%27,3)	
Institute n (%)	State Hospital	3 (%10,3)	7 (%8,0)	30,707
	E&R Hospital	3 (%10,3)	4 (%4,5)	30,362
	Private Center	11 (%37,9)	18 (%20,5)	20,082
	Private Hospital	10 (%34,5)	43 (%48,9)	20,257
	University	2 (%6,9)	16 (%18,2)	20,234
Trauma n (%)	Yes	6 (%20,7)	15 (%17,0)	21,000
	No	23 (%79,3)	73 (%83,0)	
Intervention Area n (%)	Facial soft tiss.	2 (%6,9)	14 (%15,9)	30,351
	Hair	1 (%3,4)	4 (%4,5)	31,000
	Breast	0 (%0)	9 (%10,2)	30,110
	Extremities	9 (%31,0)	22 (%25,0)	20,692
	Abdomen	0 (%0)	6 (%6,8)	30,334
	Genital	0 (%0)	3 (%3,4)	30,573
	Nose	5 (%17,2)	11 (%12,5)	30,540
Procedure Type n (%)	Multiple	12 (%41,4)	19 (%21,6)	20,037*
	Surgical	15 (%51,7)	63 (%71,6)	20,082
	Laser	7 (%24,1)	11 (%12,5)	30,146
	Medical	2 (%6,9)	4 (%4,5)	30,637
	Other	2 (%6,9)	3 (%3,4)	30,596
Applicator n (%)	Multiple	2 (%6,9)	7 (%8,0)	30,707
	Non-health	2 (%6,9)	1 (%1,1)	30,151
	Gen. Pract.	3 (%10,3)	8 (%9,1)	31,000
	Plastic Surgeon	14 (%48,3)	55 (%62,5)	20,257
	Dermatologist	3 (%10,3)	6 (%6,8)	20,688
	Other	1 (%3,4)	6 (%6,8)	30,679
		6 (%20,7)	12 (%13,6)	30,381

¹Student t test, ²Continuity Correction (Yates) test, ³Fisher's Exact test

**p<0,01

*p<0,05

Table 3. Procedure type evaluation by gender

Procedure type	Gender		p
	Female	Male	
Surgical n (%)	65 (%67.7)	26 (%68.4)	21.000
Laser n (%)	15 (%15.6)	5 (%13.2)	20.926
Medical n (%)	5 (%5.2)	1 (%2.6)	31.000
Multiple n (%)	1 (%1.0)	4 (%10.5)	30.023*
Other n (%)	10 (%10.4)	2 (%5.3)	30.508

²Continuity Correction (Yates) test, ³Fisher's Exact test

*p<0,05

In a study examining medical malpractice claims about dermatology in the UK, it was reported that the most frequently complained application was phototherapy, followed by medication, cryotherapy, surgery, and diagnostic errors (Drummond et al., 2003). In a publication on cutaneous laser applications, it was reported that laser epilation cases constitute the subject with the highest number of application errors. In the same publication, it is stated that plastic surgery specialists are most frequently faced with the claim of medical malpractice about laser applications (Jalilian et al., 2013). The incidence of complications in laser epilation is 2-3%, and among the adverse effects that can be seen due to photoepilation are prolonged erythema, oedema, swelling, bulla formation, crust or scar formation, pigmentation changes (Mandt et al., 2005; Kutlubay, 2009; Elçin, 2012).

While no opinion could be given about 17 of the incidents (12.7%), fault was found in 29 (21.6%) and no fault was found in 88 (65.7%) (Figure 1).

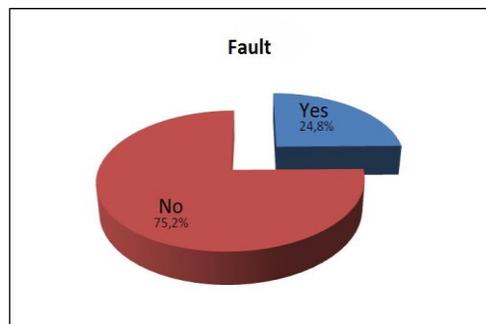


Figure 1. Fault distribution

When the cases with fault were examined in detail in our study, it was determined that the reason for the fault in most cases with fault was that the action was not in accordance with the medical rules. The application was performed by unauthorized persons in 3 cases, the records were not kept incomplete in 2 cases, the indication was incorrect in 1 case, the gauze was forgotten in 1 case, the operation performed was correct but there was a deficiency in the post-operative controls in 1 case, satisfactory aesthetic appearance was not achieved in 1 case, the absence of the doctor in charge and the lack of consent in 1 case the reasons for the fault were determined.

In our study, in the statistical evaluation made after the cases for which no opinion could be reported were excluded from the evaluation; the mean age of the group with fault was found to be statistically significantly lower than the group without fault. In the statistical evaluation made after the cases for which no opinion could be given were excluded from the evaluation; although the findings of the intervention area in the group with fault in the mixed type of group were found to be statistically significantly higher than those in the group without fault, as far as we know, there are no studies conducted elsewhere on this subject.

4. Conclusion

In 13% of the cases, no opinion could be given in terms of the presence of fault, and it was determined that the reason for this was the deficiencies in keeping and preserving the records. 70% of the cases were female and 30% were male, and defects were found in 22% of female cases and 31% of male cases. In our study, we found that the cases with fault (n=27) were younger than the cases without fault (n=35), and the presence of defect was significantly higher in cases where intervention was performed in more than one region. We think that this is due to the fact that the expectations in health and beauty are higher in women and young ages, and they are the subject of lawsuits more. Although there is no statistically significant difference in terms of the institution subject to the complaint, it is noteworthy that most of the cases come from private hospitals and private centers. We believe that a more comprehensive study should be conducted on this issue in order to determine the reasons for this.

Conflicts of interest

The authors declare that there are no potential conflicts of interest relevant to this article.

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