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Dentists' Legal Liability and Duty of Explanation in Dental Malpractice Litigation in Japan

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ABSTRACT

Introduction: Dental litigation accounts for approximately 10% of medical cases in Japan. This study sought to identify factors related to dentists' legal liability in Japan, including their duty to explain procedures and treatments to their patients.
Methods: We analysed court decisions in 166 dental malpractice cases litigated in Japan between 1978 and 2017. To identify factors related to the legal liability of dentists, an analysis was performed to evaluate the associations among patient characteristics, dentist characteristics, litigation, and dentists' explanatory behaviour.
Results: Of the 36 cases related to dentist liability, the study identified 23 cases (63.9%) of litigation in which the dentists were found to be in violation of their duty to provide an explanation. Regarding the severity of injury, the ratio of death and permanent disability was significantly higher in decisions in which the purpose of the explanation was something other than obtaining the patient's consent compared with decisions to obtain the patient's consent ($P = .014$).
Conclusions: In cases in which the dentist was found legally responsible, the proportion of cases involving procedural negligence with the explanation of medical guidance was significantly higher. Dentists should pay careful attention not only to the patient's consent but also to their explanations, including "medical guidance." Moreover, they should recognise that inappropriate explanations correlate with serious errors.
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Introduction

The number of new medical lawsuits filed in Japan in 2018 was 857, and this number has barely changed.[1] Of these, those related to dentistry accounted for 12.8% of all cases; there has been no decline in this percentage for more than a decade.[1] In addition, dental litigation makes up the largest proportion of such cases in Tokyo District Court, located in Japan's capital city.[2]

When international trends are examined, however, the number of dental malpractice claims has increased in some countries and decreased in others.[3-7] In Italy, the number of total medical liability claims has more than tripled in the last 20 years.[3] In Spain, the number of dental claims has also increased in recent years.[4] The results in Italy are different as dental malpractice claims in court have decreased in the last 15 years.[5] Recently, in the United States, the number of malpractice payments in dentistry has increased, but the number of nondentist health care professional malpractice payments has fallen.[6] Furthermore, the National Practitioner Data Bank in the United States reports that dental malpractice insurance generally has kept pace with inflation, and dental malpractice payments have increased in past decades.[7]

To date, unfortunate treatment outcomes per se have not been identified as a cause of many malpractice litigations or a factor in patient-doctor communication affecting court decisions.[8] There is increasing recognition that informed consent is of particular importance in dental treatment.[9] An analysis of dental malpractice litigation in Spain found that inappropriate behaviour regarding patients' provision of informed consent was a major cause of litigation.[4] In Turkey, it was revealed that almost all negligence that occurred during surgical treatment was deemed to be liable in some cases, not

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because of the treatment per se, but because of the lack of patient consent.[10] A study from the United Kingdom suggested that dentists who experienced malpractice complaints were often lacking when it came to communicating with their patients.[11] Japan outlines 3 positions to which a physician should provide information to a patient in a specific situation. First, a physician should provide an explanation that a rational physician would make ("rational physician theory"). Second, a physician should provide an explanation that the average patient would want in the situation ("average patient theory"). Third, a physician should provide an explanation that the patient requests ("concrete patient theory"). According to the concrete patient theory, information that the patient considers important must be explained. However, although the concrete patient theory is supported by the court, related explanation behaviours in dental settings have yet to be identified. Similarly, informed consent is central to the duty of explanation and was first presented in *Schloendorff v Society of New York Hospital, 105 N.E. 92 (N.Y. 1914)*. In Japan, physicians and dentists assume the duty of explanation, which includes informed consent as a supplementary duty of a medical treatment contract between a patient and a physician or dentist.

Decisions in litigated medical malpractice cases provide useful information about patient–physician interactions and physicians' explanatory behaviours. Thus, we examined the association between physicians' explanatory behaviours and legal liability. We reported on the association between the specific manner of listening or talking to patients/families and decisions in negligent care.[12] We also analysed variations in physicians' interactions with patients (ie, physicians' explanatory behaviours) depending on the type of medical institution (clinic vs. hospital).[13] Furthermore, we described changes in court decisions concerning physicians' explanatory behaviours over time.[14] and identified specific explanatory behaviours that may be related to physicians' legal liability.[15] These findings may be useful in improving physician–patient communication in medical settings.

In addition, a previous study on medical litigation in the dental field that analysed dental negligence during the 1990s in the UK found many cases related to restorative or oral surgery among general dentists.[16] In recent years, there have been reports of dental litigation in the fields of implants,[17] prosthetics,[18] and anaesthesia,[19] and examinations have also been made regarding changes in the situation of dentistry, such as the aging of the population. Thus, there are various fields of treatment in dentistry, the characteristics of which are also seen in the lawsuits.

To date, there have been no comprehensive reports on dental litigation cases in Japan and few reports based on systematic and quantitative analyses of decided dental malpractice litigations are available. In Japan, findings on dentist's communication behaviours are extremely limited in comparison to those on physicians' explanatory behaviours. We do not know of dentist's specific explanation behaviours that were found to be liable on the basis of the "concrete patient theory." In this study, we used court decisions in dental malpractice cases litigated in Japan to identify factors related to dentists' legal liability, including their duty to explain the treatment to their patients. Our findings may be useful in preventing medical disputes and subsequently lead to increased patient satisfaction in dental settings.

Methods

Data sources

We analysed court decisions in 166 dental malpractice cases litigated in Japan between 1978 and 2017 that were reported in *Hanrei Jiho*, *Hanrei Taimuzu*, and *Westlaw Japan*, which contain major case records of litigated cases that were decided in Japan. These decisions did not include *all* cases concerning the field of dentistry during the study period. The reason is that it is difficult to obtain court decisions that have not yet been published.

Under the direction of one of the authors (TH), 2 students at Kyushu Dental College and 1 dentist carefully read the decisions of the litigated cases. Before reading, sessions were held to educate them on the structure of a decision form, variables related to dentists' explanations, and patient and dentist factors. TH read all of the decisions, and each student and the dentist also read about half of the decisions included in the analysis. The content of each decision was then summarised using the study variables, and a database comprising the content ($n = 166$) was constructed. To verify the validity of the data coding, kappa measures of interrater agreement were calculated with respect to 5 variables between TH and the 3 others. We obtained values of 0.78 and 0.88 for the first variable (type of treatment), 0.89 and 0.88 for the second variable (severity of injury), 0.93 and 0.86 for the third variable (number of dentists), 0.97 and 0.80 for the fourth variable (dentist's insincere manner), and 0.82 and 0.87 for the fifth variable (introduction of a dental expert witness). These findings indicated good interrater agreement. In cases of coding differences between raters, the cases were discussed on the basis of the coding criteria until a consensus was reached.

Study variables

As previously mentioned, dentists' explanations are also important in dental litigation cases.[9] Therefore, in this study, we particularly focused on the duty of dentists to provide explanations. Among the litigation variables, "issue of litigation" had 3 subcategories: "dentist's explanation included," "dentist's duty to explain only," and "dentist's fault with respect to medical judgment or technical procedures only." Regarding Supreme Court rulings in Japan in 2006 on the duty to provide an explanation, it was ruled that physicians are required to provide broader explanations.[20] For this reason, "decision year" was subdivided into older cases (1978-2006) and recent cases (2006-2017).

"Type of treatment" comprised 2 subcategories: "elective or not urgently necessary" and "other." A dentist's duty to provide an explanation to the patient is judged strictly in the field of cosmetic surgery, in which treatment is elective.[21] As the criteria for physicians' explanations to patients differed between cosmetic surgery and other medical treatments, these 2 subcategories were created for "type of treatment." "Severity of injury" was split into 3 subcategories of

"temporary or cured injury," "permanent or uncured injury," and "death." "Dentistry medical fee" was subdivided into "public medical insurance," "public medical insurance and patient expense," and "patient expense only." In Japan, the majority of medical fees are covered by public insurance, but the patient must pay for numerous types of dental treatment.

The many other factors that can be read from medical lawsuit precedents are listed later in Tables 1, 2, 3, and 4. Factors related to the patient comprised "age," "gender," "patient's fault or treatment refusal," and "frequency of dental clinic visits." Factors related to the dentist consisted of "number of dentists," "gender," "type of medical facility," "dentist's fault of procedure or diagnosis," "department in which patients were treated," "contents of issue," and "apology in an insincere manner." Finally, factors related to the trial consisted of "court decision," "legal basis of plaintiff's claim," "introduction of a medical expert witness," "number of issues," and "mean length of litigation."

Statistical analyses

The variables analysed and number of cases are shown in the Figure. In Analysis 1, in cases where the issue in dispute included the duty to provide an explanation, we performed a comparison to evaluate the associations among patient characteristics, dentist characteristics, litigation, and dentists' explanatory behaviour. In Analysis 2, targeting only precedents involving violations of the duty to provide an explanation regarding the legal liability of the dentist's duty to provide an explanation, an analysis was performed to evaluate the associations with the same factors as Analysis 1. Furthermore, in Analysis 3, regarding the type of dentist explanation, an analysis was performed to evaluate the associations with the same factors as Analysis 2.

A *t*-test was used for the continuous variables, and an χ^2 test for the categorical variables. *P* values less than .05 were considered statistically significant. The PASW Statistics software package (version 18 for Macintosh) was used for the analysis.

Results

The total number of cases are shown in the Figure. In 104 cases, the dentist had a duty to provide an explanation about the issue. This accounted for 62.7% of the 166 cases. Of the 104 cases, the court decided in 36 cases (34.6%) that the dentist had a legal liability. According to the type of dentist explanation, 83 cases (82.2%) were classified as obtaining patient consent, and 16 cases (15.8%) were classified as otherwise.

The means or ratios of the study variables were compared between the 2 groups of cases categorised by litigation issue (Table 1). The litigation issues were categorised as including or not including a breach of the duty to provide an explanation. The proportion of cases in which the patients were treated was oral surgery was higher in cases not involving the dentist's duty to explain than in those involving it (P = .020). The proportion of cases in which the content of the issue was aesthetic was higher in cases involving the dentist's duty to explain than in those not involving it (P = .021).

Table 2 shows the number of cases by the type of court decision. The court identified dentist liability in 36 cases and no breach in 68 cases. Of the 36 cases, the court found the "acknowledgment of a breach of the dentist's duty to explain only" in 10 cases, "acknowledgment of the physician's fault only" in 13 cases, and "acknowledgment of the dentist's fault and a breach of the dentist's duty to explain" in 13 cases. "Dentist's fault" is defined as a dentist's error in technical performance, judgement, or both. Of the 36 cases that identified dentist liability, 23 cases (63.9%) cited the issue of litigation that the dentist had a duty to provide an explanation and was found to be in violation of that duty.

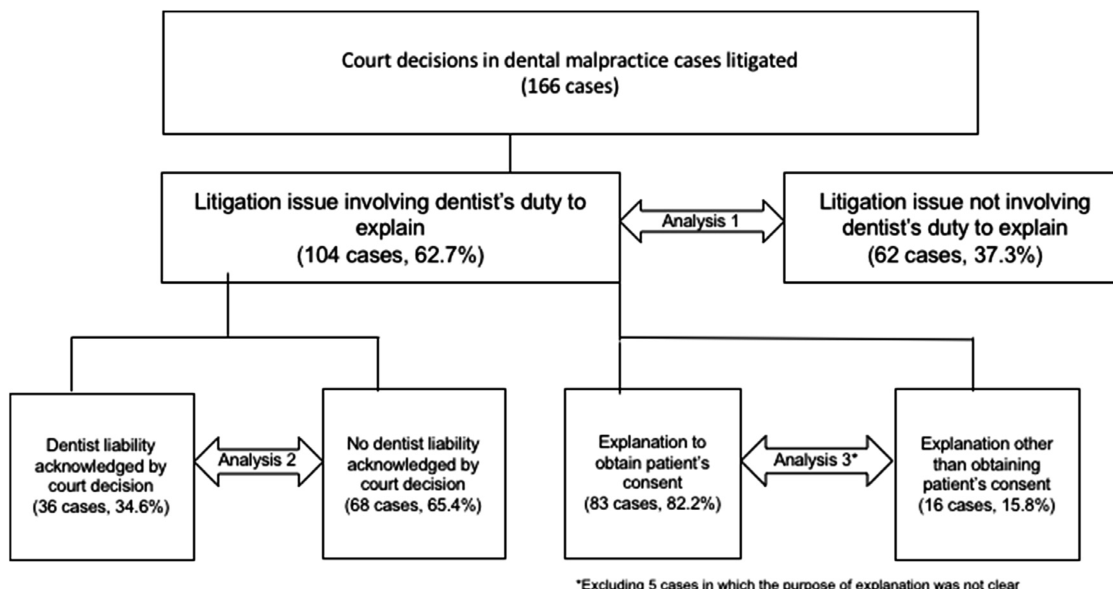

Figure – The variables analysed and number of cases.

Table 1 – Comparison of study variables by litigation issue.

Category	Study variables	Involved dentist's duty to explain	Did not involve dentist's duty to explain	P value*
Patient characteristics				
	Age (years)	48.1 ± 15.2	41.6 ± 16.5	.023
	Gender: male/included female	39/52	19/36	.320
	Type of treatment: treatment is elective or not urgently necessary/ other†	22/82	7/55	.105
	Severity of injury: permanent or death /temporary	32/72	28/34	.062
	Patient's fault or treatment refusal	15/89	5/57	.166
	Frequency of dental clinic visit: first/0:second and more	55/12	41/12	.520
Dentist characteristics				
	Number of dentists: 1/2 or more	62/42	47/15	.034
	Gender: male/included female	40/7	26/3	.421
	Type of medical facility: Clinic/hospital	86/18	53/9	.637
	Dentist's fault of procedure or diagnosis: presence/absence	23/81	18/43	.289
	Department in which patients were treated: oral surgery /other‡	20/84	22/40	.020
	Contents of issue: aesthetic treatment/ other§	17/87	3/59	.021
	Dentistry medical fee: insurance only/insurance + patient expense	53/50	41/19	.035
	Apology: presence/absence	18/84	8/54	.420
	Insincere manner: presence/absence	5/98	3/57	.619
Litigation				
	Court decision: acknowledged dentist liability not acknowledged dentist liability	36/68	29/33	.121
	Legal basis of plaintiff's claim: tort law only/tort law and contract law or contract law only	20/84	13/49	.786
	Introduction of a medical expert witness: yes/no	7/97	8/54	.180
	Decision year: -2006/2007-	48/56	35/27	.199
	Number of issues	3.8 ± 4.4	2.3 ± 1.4	.010
	Mean length of litigation (years)	5.6 ± 4.0	6.0 ± 4.0	.569

* *t*-test or χ^2 test.
† "Other" includes "treatment is urgently necessary" and "other."
‡ "Other" includes "Prosthodontics," "Endodontics and Restorative dentistry," "Periodontics," "Orthodontics," "Implant dentistry," and "Other."
§ "Other" includes "Anaesthesia," "Oral Implant," "General dental treatment," "Diagnosis," "Administer," and "Oral surgery."

Table 3 shows a comparison of the mean or ratio of each study variable according to the courts' decision on dentist's liability including only cases where an explanatory duty was included in the liability issue. The severity of injury was assessed in terms of permanent injury to the patient, and the ratio of decisions in favour of the patient was higher than that of decisions in favour of the dentist ($P < .001$). With regard to dentists' explanatory behaviour, the proportion of decisions in the patient's favour was significantly lower when the purpose of the explanation was to obtain the patient's consent than for decisions in favour of the dentist or hospital ($P = .025$). Regarding patient consent, the proportion of treatments carried out without the patient's consent was significantly greater in decisions in favour of the patient than in decisions in favour of the dentist ($P = .001$). Moreover, dentists gave significantly fewer explanations in decisions in favour of the patient than in those in favour of the dentist ($P = .001$).

Next, we compared the means or ratios of the study variables among a subset of the 2 groups of cases categorised by the purpose of the explanation (Table 4). Regarding the severity of injury, the ratio of death and permanent disability was significantly higher in decisions where the purpose of the explanation was other than to obtain the patient's consent than in decisions in which the purpose was to obtain the patient's consent ($P = .014$). Specifically, the "explanation was other than to obtain the patient's consent" included an explanation of medical treatment guidance and reasons for negative outcomes.

Table 2 – Number of cases only involving dentist's duty to explain according to the court decision.

Court decision	Judgement reason	No. (%)
Acknowledged dentist liability	36 (34.6)	
	Acknowledgement of breach of dentist's duty to explain only	10 (9.6)
	Acknowledgement of dentist's fault only	13 (12.5)
	Acknowledgement of dentist's fault and breach of dentist's duty to explain	13 (12.5)
No acknowledged dentist liability	68 (65.4)	
Total	104 (100)	

Table 3 – Comparison of study variables by court decision of dentist liability only involved in issue of dentist's duty to explain ($n = 104$).

Category	Study variables	Acknowledged dentist liability by court decision	Not acknowledged dentist liability by court decision	P value[*]
Patient characteristics				
	Age (years)	43.7 ± 13.7	50.0 ± 15.6	.112
	Gender: male/included female	11/21	28/31	.229
	Type of treatment: treatment is elective or not urgently necessary/other[†]	11/25	11/57	.088
	Severity of injury: permanent or death/temporary	20/16	12/56	<.001
	Patient's fault or treatment refusal	2/34	13/55	.052
	Frequency of dental clinic visit: first/0:second and more	26/3	29/9	.138
Dentist characteristics				
	Number of dentists: 1/2 or more	23/13	39/29	.518
	Gender: male/included female	16/2	24/5	.450
	Type of medical facility: clinic/hospital	32/4	54/14	.174
	Dentist's fault of procedure or diagnosis: presence/absence	14/22	9/59	.003
	Department in which patients were treated: oral surgery /other[‡]	9/27	11/57	.277
	Contents of issue: general treatment/other[§]	17/19	41/27	.202
	Dentistry medical fee: insurance only/insurance + patient expense	16/20	37/30	.297
	Apology: presence/absence	7/28	11/56	.652
	Insincere manner: presence/absence	5/30	0/68	.004
Litigation				
	Legal basis of plaintiff's claim: tort law only/tort law and contract law or contract law only	8/28	12/56	.573
	Introduction of a medical expert witness: yes/no	4/32	3/65	.186
	Decision year: -2006/2007-	18/18	30/38	.567
	Number of issues	3.1 ± 1.3	4.3 ± 5.3	.082
	Mean length of litigation (years)	6.0 ± 3.2	5.4 ± 4.3	.466
Dentist's explanatory behaviours				
	Purpose of the explanation: explanation to obtain the patient's consent/other[¶]	23/9	60/7	.025
	Issue of the dentist's explanation: no explanation/incorrect or insufficient explanation	10/20	8/38	.110
	Content of the dentist's explanation: related to treatment/other[‖]	17/13	34/12	.118
	Timing of the dentist's explanation: before treatment or surgery/other[#]	18/4	40/1	.046
	Who received the dentist's explanation: patient only/patient and family	20/3	40/2	.234
	Manner of the dentist's explanation to the patient: oral only/oral and other methods	14/7	24/16	.610
	Level of the dentist's explanation to the patient: relevant and specific/not sufficiently relevant or specific	3/14	21/9	.001
	Consent by the patient: presence/absence	13/6	36/0	.001
	Written consent by the patient: presence/absence	4/12	4/23	.330
	Day of the dentist's explanation: same day as treatment/not the same day	5/11	11/25	.602
	Number of times that the dentist explained	1.1 ± 1.3	2.8 ± 3.1	.001

[*] *t*-test or χ^2 test.
[†] "Other" includes "treatment is urgently necessary" and "other."
[‡] "Other" includes "Prosthodontics," "Endodontics and Restorative dentistry," "Periodontics," "Orthodontics," "Implant dentistry," and "Other."
[§] "Other" includes "Anaesthesia," "Oral Implant," "Aesthetic treatment," "Diagnosis," "Administer," and "Oral surgery."
[¶] "Other" includes explanation about medical treatment guidance and explanation about reasons for negative outcomes.
[‖] "Other" includes explanations about surgery and medical testing.
[#] "Other" includes after or during treatment or surgery.

Discussion

To date, findings derived from systematic and quantitative analyses of decided dental malpractice litigations in Japan have been extremely limited. It should also be noted that results may differ from country to country. This is because decisions are strongly influenced by the laws of a particular country, place in time, and the country's health care system. Thus, prior to discussing the study's findings, we briefly summarise malpractice litigation systems of countries cited in the Introduction. Italy, Spain, and Turkey are civil law jurisdictions, while the United States, the United Kingdom, and Japan are common law jurisdictions. In civil law jurisdictions, litigated cases are decided mainly based on civil law. In common law jurisdictions, litigated cases are decided mainly based on case law. In Japan, the Medical Practitioners Act, Dental Practitioners Act, and civil law require dentists and physicians to assume the duty of inpatient care.

Table 4 – Comparison of study variables by purpose of the explanation.

Category	Study variables	Obtain the patient's consent	Other than obtain the patient's consent	P value*
Patient characteristics				
	Age (years)	50.1 ± 14.1	37.2 ± 17.8	.009
	Gender: male/included female	29/42	8/7	.375
	Type of treatment: treatment is elective or not urgently necessary/other†	21/62	1/15	.081
	Severity of injury: permanent or death/temporary	21/62	9/7	.014
	Patient's fault or treatment refusal	14/69	1/15	.253
	Frequency of dental clinic visit: first/0: second and more	39/11	13/1	.196
Dentist characteristics				
	Number of dentists: 1/2 or more	48/35	10/6	.728
	Gender: male/included female	28/7	8/0	.209
	Type of medical facility: Clinic/hospital	68/15	13/3	.594
	Dentist's fault of procedure or diagnosis: presence/absence	17/66	3/13	.590
	Department in which patients were treated: oral surgery/other‡	13/70	7/9	.010
	Contents of issue: aesthetic treatment/other§	16/67	1/15	.187
	Dentistry medical fee: insurance only/insurance + patient expense	40/42	11/5	.117
	Apology: presence/absence	16/65	2/14	.390
	Insincere manner: presence/absence	4/78	1/15	.598
Litigation				
	Court decision: acknowledged dentist liability/not acknowledged dentist liability	23/60	9/7	.025
	Court decision: acknowledgement of breach of dentist's duty to explain/not acknowledgement of breach of dentist's duty to explain	18/65	7/9	.063
	Legal basis of plaintiff's claim: tort law only/tort law and contract law or contract law only	15/68	5/11	.191
	Introduction of a medical expert witness: yes/no	4/79	3/13	.081
	Decision year: -2006/2007-	35/48	10/6	.135
	Number of issues	4.1 ± 4.9	2.9 ± 1.1	.337
	Mean length of litigation (years)	5.5 ± 3.8	5.3 ± 3.6	.850
Dentist's explanatory behaviours				
	Issue of the dentist's explanation: no explanation/correct or insufficient explanation	10/50	8/8	.005
	Content of the dentist's explanation: related to treatment/other¶	49/11	2/14	<.001
	Timing of the dentist's explanation: before treatment or surgery/other‖	55/0	3/5	<.001
	Who received the dentist's explanation: patient only/ patient and family	51/3	9/2	.196
	Manner of the dentist's explanation to the patient: oral only/oral and other methods	33/20	5/3	.654
	Level of the dentist's explanation to the patient: relevant and specific/not sufficiently relevant or specific	23/21	1/2	.484
	Number of times that the dentist explained	2.5 ± 2.9	0.6 ± 1.0	.022

* t-test or χ^2 test.
† "Other" includes "treatment is urgently necessary" and "other."
‡ "Other" includes "Prosthodontics," "Endodontics and Restorative dentistry," "Periodontics," "Orthodontics," "Implant dentistry," and "Other."
§ "Other" includes "Anaesthesia," "Oral Implant," "General dental treatment," "Diagnosis," "Administer," and "Oral surgery."
¶ "Other" includes explanations about surgery and medical testing.
‖ "Other" includes after or during treatment or surgery.

The importance of a dentist's duty to explain treatment to a patient in dental malpractice litigation

In this study, the duty to provide an explanation was included in the litigation issue in many cases. In about 60% of the cases, the dentists were found to have breached their duty to explain and the court acknowledged the dentists' liability. Comparing these findings with those of our past study concerning other departments[22] where the duty to provide an explanation was also an issue, the ratio of certified cases in which the physician was found liable and had a duty to provide an explanation was approximately 80% for cases related to the department of internal medicine and 55% for the department of surgery, indicating a large difference. This is consistent with the results of a previous study that reported that communication is more important in a department of internal medicine than in a department of surgery.[23] The percentage of cases for dentistry fell between the figures for surgery and internal medicine. The percentage of dental cases in which there was a violation of the duty to provide an explanation tended to be similar to the percentage for surgery cases, but this does not indicate that informed consent is unimportant in dentistry, rather, it can be interpreted as indicating that dental cases share characteristics of both internal medicine and surgery cases. Although a simple comparison is not possible, an analysis of dental lawsuits in Spain showed that

inappropriate informed consent was found in many cases.[4] In a study analysing dentistry cases in Turkey, the same proportion was found as in this study concerning the violation of the dentist's duty and legal liability to provide an explanation, indicating the importance of informed consent in dentistry.[10] Thus, it appears that explanations are important in dental litigation cases in most countries.

The surgical side of dental treatment and the legal responsibility of dentists

Of the cases in which the dentist was found to be legally liable, the severity of the injury experienced by the patient was great, and a significantly high number involved procedural negligence by the dentist. Examining the results of our previous study of other clinical departments, the injury incurred was not significantly correlated with the judgement in the case of internal medicine but tended to be correlated in the case of surgery, although the correlation was not significant.[22] By contrast, the results of this study revealed a strong correlation between the injury incurred in dentistry and the case judgement. In addition, there were significantly more cases of procedural error or misjudgement by the physician in cases of internal medicine where the physician was not held legally liable, but no such correlation was noted in the case of surgery.[22] These results indicate that dentistry was significantly more prone to procedural errors in cases where legal liability was noted. In addition, previous studies of medical departments have reported that the causes of medical lawsuits and the injuries suffered by patients are not correlated and that many medical lawsuits result from communication issues.[24-26] Results that differed from these findings have been observed in dentistry, where correlations with dentists' explanations, procedural negligence, and patient disability were noted. We believe it is necessary that dental care workers keep in mind that both communication with the patient and procedural skills affect patient benefits.

Importance of explanation other than for obtaining patient consent in dental litigation cases

Additionally, when the purpose of the explanation was "other than to obtain patient consent," the percentage of dentists who were found to be legally liable was significantly higher than when explaining for the purpose of obtaining consent. Further, more serious results were often noted. Regarding "explanations" in medical treatment, explanations for the sake of obtaining patient consent account for the majority of cases;[15] in fact, in this study, the purpose of the explanation was "to obtain patient consent" in more than 80% of cases. However, in recent years in Japan, explanations regarding medical treatment guidance such as notification of cancer have been problematic because there are many items related to patients' life or death. Based on the results of this study as well, although the number of cases was small, the number of cases related to medical treatment guidance was significantly higher in which the dentist was found to be legally liable. The following are examples of specific cases related to medical treatment guidance in the field of dentistry. During the orthodontic treatment, the dentist did not explain the risk of dental caries and brushing instruction, which resulted in the occurrence of dental caries and a subsequent confirmed breach of the dentist's duty to provide an explanation. Furthermore, a detailed analysis revealed that a violation of the duty to provide an explanation was found in many cases where "the final report concerning the explanation about the reasons for negative outcomes" was the issue. Upon investigation of the current status of these final reports and the legal responsibilities of physicians in Japan in recent years, these reports are being used in the medical field, where they are considered a third type of explanation alongside explanations for obtaining patient approval and those for medical treatment guidance.[27] There are already a number of precedents related to this final reporting obligation, establishing a new category of the duty to provide explanations.[27] In the case of this study, the maxillary bone was mistakenly removed during prosthetic treatment, and the maxillary sinus was perforated, which resulted in inflammation of the nasal sinus. However, the exact reason was not reported to the patient. The dentist acknowledged the breach of duty by failing to explain the same.

In addition, there were cases regarding violations of the duty to make a department change recommendation and of cancer notification in the present study. Regarding the latter, the notification rate of cancer is rapidly increasing in Japan. Furthermore, even in trials, the decision to inform the patient has been changed from being at the discretion of the physician to being an obligation. The first Supreme Court decision on cancer notification was in 1995,[28] at which time it was dismissed as being within the discretion of the physician, but in 2002, the decision was altered to recognise the obligation of the doctor to notify the family members of the patient.[29] Thus, it is necessary to recognise that physicians' obligations regarding disease notification are currently changing because of the effects of medical progress, patient rights, and the historical background and may be altered further in the future.

In the field of dentistry as well, regarding new duties to provide an explanation other than for the purpose of obtaining consent, new cases may occur or a different judgement may be made. Dental care workers should be sensitive to and pay careful attention to such changes, as well as provide careful explanations.

Characteristic factors found in dental litigation cases where the duty to provide an explanation was an issue

Some factors were identified as more characteristic of dental malpractice litigation and were not related to legal liability in other departments.[15,22] To summarise the study's findings by using a simulated patient, an older patient receiving dental care in particular aesthetic treatment in a large clinic with multiple dentists is most likely to be awarded compensation because of negligent dental care. A more detailed explanation is as follows.

First, the mean age of the plaintiffs was high. This is because there are many elderly patients in Japan and elderly persons may be dissatisfied with explanations. It may be necessary to provide more careful explanations to elderly persons.

Second, the greater the number of attending dentists, the more the duty to provide an explanation became an issue.

Most dentists in Japan work in private clinics that often have only 1 attending dentist. Therefore, there are few large-scale dental treatment facilities. This suggests that the explanations at larger institutions may be less careful than at clinics, and it is necessary for dentists working in hospitals to be aware of this.

Moreover, there were many departments other than oral surgery. This is similar to the results of previous studies that indicated that the provision of explanations is a greater problem in internal medicine than in surgery. However, as previously mentioned, dental cases are often accompanied by procedural errors and seem to have slightly different trends, regardless of whether legal liability is assessed.

Among cases concerning aesthetics, in most cases the duty to provide an explanation was included as an issue under dispute, which is the most salient characteristic of cases involving dentistry. Special attention should be paid to the provision of explanations to patients when performing aesthetic treatment. Moreover, in connection with this, the duty to provide an explanation was an issue in more than half of the cases in which the treatment was entirely at the patient's own expense. This can be expected to be closely related to the lack of public insurance coverage for many aesthetic treatments. Thus, more careful explanations are required in connection with aesthetic treatment.

Furthermore, the dentist's insincere manner is a factor directly related to communication behaviour and demonstrates a relationship with court decisions. A dentist's recognition that such an attitude influences legal liability may help improve dentist-patient communication.

Limitations of the study and future issues

Finally, we will discuss the limitations of this study and future issues. First, this study did not examine *all* recent court decisions concerning the field of dentistry during the study period in Japan. Thus, a bias may have been introduced because the decisions examined were those published in case reports according to topicality and a new interpretation of the laws. Caution is needed with regard to the external validity of these findings. Second, only a small number of cases were analysed; further cases must be assessed to clarify factors related to dentists' legal liability.

Despite these limitations, our identification of the factors affecting dental disputes in our analysis of litigated dental malpractice cases has practical implications. The duty of the dentist to provide an explanation was the issue in many cases. Regarding medical explanations, dentists should be aware that dental cases have characteristics of both internal medicine and surgery cases. Specifically, based on the present findings, we make the following recommendations regarding dentists' explanations. First, to avoid dental malpractice, it is important to provide more detailed explanation, especially to the elderly. Such explanations should include details of aesthetic treatment and procedures that are not covered by insurance. Second, to avoid court decisions that acknowledge dentists' liability, dentists should provide relevant and specific explanations more frequently, and they should obtain patient consent for sharing these explanations before treatment or surgery.

Moreover, dentists should pay careful attention not only to their patients' consent but also to the explanations they provide, including "medical guidance," and should recognise that inappropriate explanations are correlated with serious results. Few reported findings have been based on quantitative analyses of decided dental malpractice litigations in Japan. Additionally, because only decided cases in the field of dentistry were analysed in this study, our findings may contribute to preventing an increase in dental malpractice litigation in the future. Further studies are needed to confirm the validity of our results.

Conflict of interest

None disclosed.

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