

Patterns of medical accidents and disputes in the orthodontic field in Korea

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The committee of admitted doctors developed a questionnaire regarding medical dispute and distributed it to 1,600 members of Korean Academy of Orthodontics. The questionnaire consisted of three categories and 56 items covering basic information about the doctors and patients who had experienced medical disputes, the cause and workaround of medical accidents, and methods for taking precautions. The present survey showed a similar proportion of responders who had experienced a medical accident compared to the study in 1997. The primary reason for medical disputes was dissatisfaction with appearance. Many doctors felt that they would likely experience a medical dispute at some point. Most disputes were settled by doctors themselves, usually for an amount of less than 5 million Korean won. For some doctors, medical accidents lead to ongoing psychological problems. Responders felt that continuing education for medical dispute is very necessary. These results reveal a need for the association of orthodontists to lead advancements in education and countermeasures for preventing and managing medical accidents and disputes.

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INTRODUCTION

Expanded medical coverage and governmental policies for low medical costs have decreased the economic burden of hospital-based care in Korea.¹ In addition, improved standard of living and heightened interest in health and medical issues have increased the demand for healthcare,² while advanced information and communication technologies have enabled the public to obtain more medical information. These changes have led to increased medical disputes.³ For example, 85 medical accident cases were litigated in 1990, whereas 882 cases (an almost 10-fold increase) were legally contested in 2002.⁴

This trend is also observable in dentistry.⁵ According to the Korean Consumer Protection Board,⁶ dental disputes constituted 926 and 2,388 of the counsels in 1996 and 2004, respectively; in the first half of 2005, such disputes accounted for most of the medical litigations. Further, compensation for damages is rising by 25.1% annually.¹ The increasing number of dental disputes heightens the need to analyze the underlying factors in the orthodontic field.

A committee of the Korean Association of Orthodontists developed and applied a questionnaire to identify factors related to medical accidents among members in 1998.² A similar investigation was repeated in 2011. Here, we report the results of the 2011 survey of medical accident-related factors in orthodontics.

MATERIALS AND METHODS

The questionnaire consisted of three categories with 56 items to obtain the relevant information. The healthcare provider-related information included gender, age, geographic area of practice, type of facility, duration of practice, orthodontic training, total number of orthodontic patients, weekly sessions of orthodontic practice, and number of orthodontic patients per session. The patient-related information included patient age, chief complaint, diagnosis, severity of malocclusion, duration of treatment, subject of the dispute, and occupation, age, and standard of living of the complainant.

The questionnaire also covered the cause of the medical accident from the provider's and complainant's viewpoints, time of occurrence of the accident (based on the clinic opening time), existence and cause of medical negligence, experience of lock-in, resolver of the dispute, amount of indemnity, and time until settlement. Furthermore, it addressed whether advice was sought, the result of such inquiry, and the provider's psychological state after the dispute.

The items related to precautions during orthodontic

treatment and medical record maintenance were methods for evaluating systemic diseases, types of diagnostic data, use of computers in diagnosis, frequency of explanation before treatment, and time taken for diagnosis. The frequency of agreement before treatment, methods used to explain treatment fees, frequency of documenting and retaining medical records, frequency of taking radiographs, and method for managing patients with prolonged clinical absence were also recorded. Finally, opinions about increasing dental disputes and the necessity of continuing education and creating a system for dealing with conflicts were sought. Availability of coverage for compensation and satisfaction with the amount were also noted.

The questionnaire was distributed to 1,600 members of the Korean Academy of Orthodontics by mail, with a return envelope enclosed. For several questions, the respondents were allowed more than one answer. The analysis excluded questions with missing answers or multiple responses where a single answer was required. Associations between experience of medical accidents and the other recorded data were statistically analyzed by the chi-square test. $p < 0.05$ indicated a significant difference. For statistical analysis, the SPSS 15.0 program (SPSS Inc., Chicago, IL, USA) was used.

RESULTS

Healthcare provider-related findings

In August 2011, 369 members (237 men and 130 women) of the Korean Association of Orthodontists completed the questionnaire. Of these respondents, 101 (27.5%) had experienced medical accidents (experienced group), whereas 266 (72.5%) had not (inexperienced group).

Gender

The experienced group included 70.3% male and 29.7% female respondents, and the inexperienced group comprised 62.4% male and 37.59% female respondents. The chi-square test did not show significantly different experience of medical accidents between the genders ($p = 0.1581$).

Age

In the experienced group, 24.7% were in the 30–40 age group, 46.5% were aged between 40 and 50 years, and 28.7% were over 50 years old. Among the 30–40 year olds, 16% fewer respondents had experienced medical accidents than those who had not. In contrast, among the respondents aged 40–50 years, 8.4% more had experienced medical accidents than those who had not. Experience of medical accidents significantly differed among the age groups (Table 1).

Geographic area of practice

In the experienced group, 64% of the respondents practiced in Seoul and Gyeonggi. A high rate of medical accidents was also reported in big cities such as Busan, Daejeon, Daegu, and Incheon. However, experience of medical accidents did not significantly differ among the areas (Table 2).

Type of facility

Among the experienced respondents, 83.2% worked at private clinics, whereas 1.0–6.9% worked at dental college hospitals, medical school hospitals, dental hos-

pitals, and general hospitals. Experience of medical accidents did not significantly differ according to the facility type (Table 3).

Duration of practice

Two-thirds (63.6%) of the experienced respondents had been in clinical practice for over 10 years and 23.3% had been practicing for 5–10 years. Experience of medical accidents significantly differed according to the duration of practice (Table 4).

Orthodontic training and number of patients

With regard to orthodontic training, 77% and 23% of the respondents in the experienced group were and were not trained in orthodontics, respectively. In the inexperienced group, 64.9% had received orthodontic training but 35.1% had not. Experience of medical accidents significantly differed between the trained and the untrained respondents ($p = 0.0269$; Table 5).

Patient-related findings

Chief complaint, diagnosis, and severity of malocclusion

The chief complaints of 32.3% and 25.4% of the pa-

Table 1. Experience of medical accidents according to age

Age (yr)	Experienced	Non-experienced
< 30	0 (0.00)	9 (3.40)
30–39	25 (24.75)	108 (40.75)
40–49	47 (46.53)	101 (38.11)
> 50	29 (28.71)	47 (17.74)
<i>p</i> -value*	0.0021	

Values are presented as number (%).

*Calculated by Fisher’s exact test.

Table 2. Experience of medical accidents according to geographic region

Region	Experienced	Non-experienced
Gangwon	2 (0.50)	4 (1.10)
Gyeonggi	24 (6.58)	55 (15.07)
Gyeongnam	2 (0.55)	8 (2.19)
Gyeongbuk	5 (1.37)	5 (1.37)
Gwangju	2 (0.55)	15 (4.11)
Daegu	4 (1.10)	10 (2.74)
Daejeon	4 (1.10)	7 (1.92)
Busan	5 (1.37)	17 (4.66)
Seoul	40 (10.96)	115 (31.51)
Ulsan	2 (0.55)	5 (1.37)
Incheon	4 (1.10)	6 (1.64)
Jeonnam	1 (0.27)	3 (0.82)
Jeonbuk	4 (1.10)	6 (1.64)
Cheju	0 (0.00)	1 (0.27)
Chungnam	1 (0.27)	5 (1.37)
Chungbuk	0 (0.00)	3 (0.82)
<i>p</i> -value*	0.8349	

Values are presented as number (%).

*Calculated by chi-square test.

Table 3. Experience of medical accidents according to type of facility

Facility type	Experienced	Non-experienced
Dental college hospital	7 (6.93)	13 (4.89)
Medical school hospital	7 (6.93)	10 (3.76)
General hospital	1 (0.99)	2 (0.75)
Dental hospital	2 (1.98)	9 (3.38)
Private clinic	84 (83.17)	232 (87.22)
<i>p</i> -value*	0.5044	

Values are presented as number (%).

*Calculated by Fisher’s exact test.

Table 4. Experience of medical accidents according to duration of practice

Duration (yr)	Experienced	Non-experienced
< 1	0 (0.00)	2 (0.76)
< 3	6 (6.06)	54 (20.53)
< 5	7 (7.07)	37 (14.07)
< 10	23 (23.23)	55 (20.91)
≥ 10	63 (63.64)	115 (43.73)
<i>p</i> -value*	0.0009	

Values are presented as number (%).

*Calculated by chi-square test.

