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## Analysis of Traditional Medical Disputes: Data from the Korean Acupuncture and Moxibustion Medicine Society (2013-2017)



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### ABSTRACT

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#### Keywords:

Korean medical disputes,  
Korean medical malpractice,  
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**Background:** The purpose of this study was to analyze the medical dispute cases in Acupuncture and Moxibustion treatment, and present the guidelines of treatment to prevent medical disputes.

**Methods:** Korean Acupuncture and Moxibustion Medicine Society medical dispute cases from January 2013 to September 2018 were collected and analyzed.

**Results:** There were 80 cases, which included acupuncture treatment (54 cases), cupping treatment (7 cases), local infection / inflammation (17 cases), and neurological symptoms (13 cases). Analysis of the correlation between types of medical accidents and the treatment methods, showed that local infection and inflammation (12 cases) were the most reported in acupuncture treatment.

**Conclusion:** This study was performed to analyze the current status of medical disputes in the field of acupuncture and moxibustion, and provide basic data for guidelines to prevent them. Further study preparing for clinical guidelines to prevent medical disputes in specific departments are warranted in the future.

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### Introduction

In Chapter 1, Article 1 of the Act of Medical Malpractice Damage's Relief and Mediation for Medical Dispute Resolution, medical disputes are defined as a "fight over medical accidents." "Medical accident," is a concept broader than "medical malpractice," and refers to unexpected situations in the process of medical practice. The term malpractice may be only used for medical accidents caused by health care providers who did not fulfill their responsibilities in performing medical practice, and is medically addressed at the time [1].

Recorded in the 2017 statistical yearbook of medical dispute mediation [2], the total number of requests for medical dispute mediation increased from 1,398 in 2013 to 2,420 in 2017, showing an annual average increase of 14.7%. The total number of requests for medical dispute mediation in the field of traditional Korean medicine showed an increase of 53.7%, from 41 requests in 2016 to 63 requests in 2017. In cases of medical disputes in traditional

Korean medicine, where invasive procedures are relatively less likely compared with other medical disputes, accidents from which patients are hurt or killed, were low. However, with increase in the demands for traditional Korean medicine services, and enhancement in the sense of individual rights, medical disputes in traditional Korean medicine are likely to increase [3].

To understand the status of medical disputes and reduce their occurrence, continued efforts are being made in the medical field to analyze the cases and judicial precedents of each medical department [4,5]. Studies to understand and prevent medical disputes in traditional Korean medicine are insufficient. Therefore, medical dispute cases were studied by analyzing the Korean Acupuncture and Moxibustion Medicine Society consultation of medical disputes, the cases that were answered, and the preventive strategies for medical disputes presented.

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**Materials and Methods**

**Subjects**

There were 336 cases sent from the Association of Korean Oriental Medicine that were consulted on, 256 cases excluded, and 80 cases answered by the Korean Acupuncture and Moxibustion Medicine Society. The period of study was between January, 2013, to September, 2018. Cases where a specific description of traditional Korean medical practice was not evident, not based on good clinical practice, or treatment administered by non-licensed individuals, were excluded.

**Treatment methods**

The 80 answered cases included in this study were categorized by year, month, treatment methods, and adverse events, to understand the correlation of treatment method and adverse events in medical disputes. Of the 80 cases answered, mistakes by traditional Korean medicine doctor (as determined by the Korean Acupuncture and Moxibustion Medicine Society), were organized into significance of treatment method and mistake, and cross-tabulation analysis was made. The outcomes of the medical disputes were analyzed to understand the overall status.

**Statistical methods**

Statistical analysis was performed using Windows SPSS version 24.0 (SPSS Inc, Chicago, IL, USA). Crossover analysis using the Chi-square test was performed to determine the association between categorical variables. Analysis of mistakes by Korean medicine doctors was determined by t-test, and a *p* value less than 0.05 was considered to be statistically significant.

**Ethical consideration**

This study was performed under the consent of the Institutional Review Board. (Consent No.: DJD SKH-18-E-15).

**Results**

Of the 336 cases that were consulted on by the Korean Acupuncture and Moxibustion Medicine Society from January, 2013, to September, 2018, 256 cases (76.2%) were excluded, and 80 cases (23.8%) were answered and included for the analysis (Table 1). Of the 256 cases excluded, non-medical disputes accounted for 238 cases (70.8%), and medical disputes involving non-licensed practitioners was 18 cases (5.4%). Among the 238 cases consulted on involving non-medical disputes, adequacy of hospitalization ranked the highest with 208 cases (61.9%).

**Status of annual medical disputes**

The total number of Korean medicine disputes answered by the Korean Acupuncture and Moxibustion Medicine Society from January, 2013 to September, 2018 was 80. There were 23 cases in 2017, and 15 cases each for 2014 and 2016 (Fig. 1). Year 2018 was only analyzed through September (14 cases), so the number of cases will increase through December.

**Status of monthly medical disputes**

The status of monthly medical disputes was analyzed by adding the number of consultations by months. January and March had the highest number with 12 cases in each month, followed by August, September, and December each with 7 cases (Fig. 2).

Table 1. Classification of Cases Advised by the Korean Acupuncture and Moxibustion Medicine Society.

Cases advised by the Korean Acupuncture & Moxibustion Medicine Society		No. of cases (%)	
Cases except Korean medical disputes	Appropriateness of hospitalization	208 (61.9)	238 (70.8)
	Etc.	30 (8.9)	
Cases about Korean medical disputes	Korean medical disputes by unlicensed people	18 (5.4)	98 (29.2)
	Korean medical disputes by Korean medicine doctors	80 (23.8)	
Total		336	

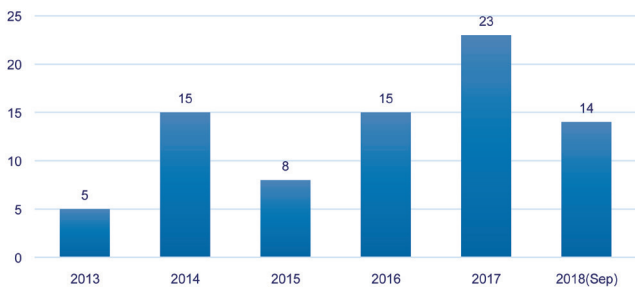


Fig. 1. Annual status of frequency of Korean medical disputes.

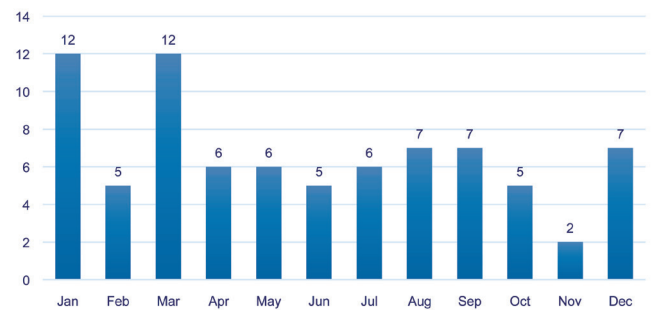


Fig. 2. Monthly frequency of Korean medical disputes.

### Status of medical disputes by treatment methods

There were 54 cases of medical disputes where acupuncture treatment was involved (67.5%), 7 cases of cupping therapy (8.8%), and 6 cases of pharmacopuncture treatment (7.5%). Upon further classification of medical disputes, acupuncture needles accounted for 46 cases (57.5%), acupotomy 5 (6.3%), bee-venom acupuncture 4 (5.0%), indirect moxibustion 4 (5.0%), and others 4 cases (5.0%; Table 2).

### Status of medical disputes classified by adverse events

Local infection and inflammation was the most common medical dispute with 17 cases (21.3%), neurological symptoms in 13 cases (16.3%), burns in 8 cases (10.0%), pneumothorax in 7 cases (8.8%), hematoma in 7 cases (8.8%), and aggravation of pre-existing disorders in 7 cases (8.8%) (Table 3).

### Difference in medical disputes, adverse events induced by treatment methods

Analyzing the correlation of treatment methods and medical disputes, in acupuncture treatment, there were 12 cases of local infection and inflammation (22.2%), 11 cases of neurological symptoms (20.4%), 7 cases of pneumothorax (13.0%), and

7 cases of hematoma (13.0%). For cupping therapy, local infection and inflammation were the causes for 4 cases (57.1%). For bee-venom treatment, anaphylactic shock had 3 cases (50.0%). For moxibustion treatment, all 5 cases (100.0%) were related to burns. Upon further classification, local infection and inflammation was involved in 10 cases (21.7%), acupuncture needle in 4 cases (80%), and in cases involving acupotomy, there were neurological symptoms in 4 cases (80.0%). For cupping therapy, 3 cases (100.0%) of wet cupping were related to local infection and inflammation, and there were 2 cases (100.0%) of fire cupping that were related to burns (Table 4).

### Status of medical disputes considered as medical malpractice by the Korean Acupuncture and Moxibustion Medicine Society

Excluding 12 cases (15.0%) where it was hard to determine the medical malpractice, 16 cases (20.0%) out of a total of 80 cases, were considered as medical malpractices. Of these, 11 cases (13.8%)

Table 2. Status of Korean Medical Disputes According to the Treatment Method.

Treatment method	Cases		
	No. of cases (%)	Total No. (%)	
Acupuncture	Acupuncture	46 (57.5)	54 (67.5)
	Acupotomy	5 (6.3)	
	Fire needling	1 (1.3)	
	Electro acupuncture	1 (1.3)	
	Skin acupuncture	1 (1.3)	
Cupping	Wet cupping	3 (3.8)	7 (8.8)
	Dry cupping	2 (2.5)	
	Fire cupping	2 (2.5)	
Pharmacopuncture	Bee Venom	4 (5.0)	6 (7.5)
	Etc.	2 (2.5)	
Moxibustion	Indirect-moxibustion	4 (5.0)	5 (6.3)
	Direct-moxibustion	1 (1.3)	
Diagnosis		2 (2.5)	2 (2.5)
Examination		1 (1.3)	1 (1.3)
Physical therapy	Hot pack	1 (1.3)	1 (1.3)
Etc.		4 (5.0)	4 (5.0)
Total		80 (100.0)	80 (100.0)

Table 3. Occurrences According to Adverse Event of Korean Medical Disputes.

Type of events	No. of cases (%)		
Local infection/inflammation	Cellulitis	6 (7.5)	17 (21.3)
	Spondylitis	4 (5.0)	
	Osteomyelitis	2 (2.5)	
	Abscess	2 (2.5)	
	Synovitis	1 (1.3)	
	Compartment syndrome	1 (1.3)	
	Necrotizing fasciitis	1 (1.3)	
Neurological symptoms	Weakness	7 (8.8)	13 (16.3)
	Nerve injury	4 (5.0)	
	Hypoesthesia	2 (2.5)	
Burn	8 (10.0)	8 (10.0)	
Pneumothorax	7 (8.8)	7 (8.8)	
Hematoma	7 (8.8)	7 (8.8)	
Worsening	7 (8.8)	7 (8.8)	
Death	4 (5.0)	4 (5.0)	
Impairment of muscle, tendon, Ligament, cartilage	3 (3.8)	3 (3.8)	
Anaphylactic shock	3 (3.8)	3 (3.8)	
Not removed needle	3 (3.8)	3 (3.8)	
Misdiagnosis	2 (2.5)	2 (2.5)	
Dislocation	2 (2.5)	2 (2.5)	
Fracture	1 (1.3)	1 (1.3)	
Etc.	3 (3.8)	3 (3.8)	
Total	80 (100.0)	80 (100.0)	

Table 4. Differences in Incidence of Korean Medical Disputes According to the Treatment Methods.

Treatment method adverse event	Acupuncture					Cupping			Pharmacopuncture		Moxibustion		Diagnosis	Examination	Physical therapy	Etc	Total
	Acupuncture	Acupotomy	Fire needling	Electroacupuncture	Skin acupuncture	Wet cupping	Dry cupping	Fire cupping	BV	Etc.	Indirect moxibustion	Direct moxibustion					
Local infection/inflammation	10	1	-	-	1	3	1	-	-	1	-	-	-	-	-	-	17
Neurological symptoms	6	4	-	1	-	-	1	-	1	-	-	-	-	-	-	-	13
Burn	-	-	-	-	-	-	-	2	-	-	4	1	-	-	1	-	8
Pneumothorax	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Hematoma	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Worsening	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	7
Death	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Impairment of muscle, tendon, Ligament, cartilage	1	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	3
Anaphylactic shock	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	3
Forgotten needle	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Misdiagnosis	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2
Dislocation	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2
Fracture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Etc.	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3
Total	46	5	1	1	1	3	2	2	4	2	4	1	2	1	1	4	80

BV, bee venom

Table 5. Opinions of Korean Acupuncture and Moxibustion Medicine Society on Korean Medical Disputes.

Opinions of Korean Acupuncture & Moxibustion Medicine Society on Korean medical disputes	No. of cases	
	Cases	Total
Lowcausal relationship with medical accident	52	80
Partially responsible for medical accident	11	
High causality with medical accident	5	
Cannot determine by the data submitted alone	12	

were considered as “partial medical malpractice by the Korean medicine doctor,” and 5 cases (6.3%) were considered as a “serious medical malpractice.” There were 52 cases (65.0%) considered as a “low possibility of medical malpractice” (Table 5).

**Cross-tabulation analysis of medical malpractice related to treatment methods**

Correlation of treatment methods with medical malpractice by the Korean Acupuncture and Moxibustion Medicine Society, was cross tabulated and chi-square analysis was applied. Treatment methods were divided into acupuncture treatment and non-acupuncture treatment groups to test for a correlation with medical malpractice as determined by the Korean Acupuncture and Moxibustion Medicine Society. The acupuncture treatment group, in comparison with the non-acupuncture group, showed statistically lower level of medical malpractice by the Korean medicine doctors. The non-acupuncture group, in comparison with the acupuncture treatment group, showed statistically more consideration as “partial medical malpractice” and “serious medical malpractice” (Table 6).

**Status of results of medical disputes**

Of the total 80 cases answered by the Korean Acupuncture and Moxibustion Studies Society for medical disputes, there were 42 cases (52.5%) related to liability insurance and registered through a judging committee for liability insurance, with 23 cases (28.8%)

Table 6. Differences in Recognition of Medical Malpractice According to the Treatment Methods.

	Cannot determine No. (%)	Lowcausal relationship No. (%)	Partially responsible No. (%)	High causality No. (%)	Total No. (%)	X <sup>2</sup> (p)
Acupuncture group	8 (14.8)	41 (75.9)	3 (5.6)	2 (3.7)	54 (100.0)	12.893 (0.005*)
Except acupuncture group**	4 (15.4)	11 (42.3)	8 (30.8)	3 (11.5)	26 (100.0)	
Total	12 (15.0)	52 (65.0)	11 (13.8)	5 (6.3)	80 (100.0)	

\* Significant mean differences by X<sup>2</sup>-test ( $p < 0.05$ ).

\*\*Except acupuncture group: cupping, pharmacopuncture, moxibustion, diagnosis, examination, physical therapy.

Table 7. The Results of Korean Medical Disputes.

	Results	No. of cases (%)
Korean medical disputes	Medical consultation regarding liability insurance	42 (52.5)
	Criminal case	23 (28.8)
	Civil case	15 (18.8)
Total		80 (100.0)

Table 8. The Sentence of Civil Cases.

	Results	No. cases (%)
Sentence of civil cases	Conciliation	4 (44.4)
	Uncoordinated (on trial)	2 (22.2)
	Lose a case	1 (11.1)
	Win a case	1 (11.1)
	Dismissing the appeal	1 (11.1)
Total		9 (100.0)

criminally charged with involuntary manslaughter due to professional negligence. There were 15 (18.8%) of the 80 answered cases that lead to civil suits (Table 7), and 6 of these cases lacked the data for an inquiry of judgment in civil cases. Of the 9 civil cases where judgment could be made, 4 cases (44.4%) were conciliated after judgment, whereas 2 cases (22.2%) were still in trial without conciliation (Table 8).

## Discussion

In the 2017 Statistical Yearbook of medical dispute mediation [2], there were 9,311 cases requesting medical dispute mediation between 2013 to 2017. In the field of traditional Korean medicine there were 242 cases (2.6%). However, in 2017 the number of cases was 63 which represented a 53.7% increase on 2016 (41 cases). In this study 80 cases (from January, 2013 to September, 2018), that

had been answered by the Korean Acupuncture and Moxibustion Medicine Society (via the Association of Korean Oriental Medicine) were analyzed to identify the current status of the medical dispute, and provide basic data for guidelines to prevent medical accidents.

As the result of analyzing the 80 answered cases according to treatment method, acupuncture was the most frequently disputed treatment with 54 cases (67.5%), followed by 7 cases in cupping (8.8%), and 6 cases in pharmacopuncture (7.5%). In previous reports of the status of medical disputes according to the treatment method, there were 479 cases analyzed in the Korean medical dispute white papers [6], with 186 cases of acupuncture (28.3%) and 98 cases of pharmacological side effects (14.9%) with the highest number of disputes raised. According to the statistical yearbook of medical dispute mediation [2] that analyzed 122 cases appraised for 5 years (2013 to 2017), 62 cases of acupuncture (50.8%) and 24 cases of herbal medicine (19.7%) were reported. This may be due to the fact that acupuncture and herbal medicine are the most commonly used treatment methods in traditional Korean medicine, and so are more vulnerable to medical dispute. In this study, only cases requested for medical dispute mediation in the Department of Acupuncture and Moxibustion were analyzed, so acupuncture and cupping therapy cases were high, unlike the previous reports above.

As the result of analysis classified by adverse events, local infection and inflammation were the most common with 17 cases (21.3%), followed by 13 cases of neurological symptoms (16.3%), and 8 cases of burns (10.0%). This is a similar result to the analysis of the 144 cases of requests for medical dispute mediation in the field of Korean medicine from 2012 to 2016 [7], resulting in 23 cases of pain (16.0%), 17 cases of local infection and inflammation (11.8%), and 16 cases of neurological symptoms (11.1%). It is thought that due to the nature of traditional Korean medicine treatments such as acupuncture, cupping therapy, pharmacopuncture and moxibustion being invasive, caution is necessary to prevent infection.

Looking at the difference in medical disputes and adverse events caused by the treatment method, local infection and inflammation were the highest in 12 cases (22.2%), and neurological symptoms appeared in 11 cases (20.4%). In a detailed analysis in the cases involved with acupuncture needles, local infection and inflammation had 10 cases (21.7%), whilst neurological symptoms had 4 cases (80.0%), in the cases where acupotomy is involved, neuroglial symptoms account for most cases. In acupotomy there is the possibility of damaging nerve cells or blood vessels in the process of detaching adhesions or incising the soft tissue [8]. In the

cases where cupping therapy is involved, there were 4 cases (57.1%) of local infection and inflammation. This is thought to be due to practitioners not taking precautions against infection on the region where wet cupping was performed.

As a result of looking into the current status of medical disputes considered as medical malpractice, there were 11 cases (13.8%) considered as “partial medical malpractice by the Korean medicine doctor,” and 5 cases (6.3%) considered as “serious medical malpractice.” Therefore, only 16 cases (20.0%) were considered as medical malpractice on the part of the Korean medicine doctor.

In the cross-tabulation analysis of treatment methods considered as medical malpractice by the Korean Acupuncture and Moxibustion Medicine Society, the acupuncture treatment group (compared with the non-acupuncture group), had statistically lower consideration for medical malpractice of Korean medicine doctors. Non-acupuncture group, compared with the acupuncture treatment group showed statistically more consideration as “partial medical malpractice,” and “serious medical malpractice.”

According to the consulted cases for acupuncture treatment, local infection and inflammation (12 cases, 22.2%) happened most commonly, with many cases of local infection and inflammation that did not match the acupuncture treated area. Considering the length of the acupuncture needle, and the depth of the needle insertion, in many cases the practitioners would have been unable to reach the area of infection and inflammation, thereby a low possibility of malpractice was ruled. In cases of non-acupuncture treatments, cases of cupping therapy frequently resulted in local infection and inflammation (4 cases, 57.1%), with the treatment area in close proximity to the area of infection and inflammation in many cases. In cases involving pharmacopuncture, anaphylactic shock happened the most frequently (3 cases, 50.0%), mainly because the constituents of bee venom may cause anaphylactic shock. These cases were judged to be partial or serious medical malpractice cases.

As the result of analyzing a total of 80 medical dispute cases answered by the Korean Acupuncture and Moxibustion Studies Society, medical disputes related to liability insurance ranked the highest with 42 cases (52.5%), with 23 (28.8%) criminally charged cases judged as involuntary manslaughter due to professional negligence. Of the 80 answered cases, 15 cases (18.8%) lead to civil suits. By analyzing the judgments (9 civil cases) where an inquiry could be heard, the most cases (4 cases, 44.4%) had been conciliated after judgment. In case of medical disputes, when the treatment intervention by the medical personnel violated the duty of care and caused damage to the patient's body, many cases were criminally charged for involuntary manslaughter. Many of the civil cases were successfully mediated and reached agreement.

It is important to prevent medical accidents by analyzing previous events to prevent various medical disputes. Therefore, in this study the following precautions and guidelines are proposed to prevent medical disputes for acupuncture and moxibustion treatment.

Firstly, adhere to the Clean Needle Technique [8], and take vigorous precautions for preventing infection, this includes the practitioner washing their hands before invasive treatments such as acupuncture, and checking if the treatment area is free of injury or disease. Sterilized disposable acupuncture needles and guiding pipes should be used, as well as sterilized disposable cupping cups and lancets when performing wet cupping. Every used device should be disposed of immediately. After the intervention, the patient should be warned to keep the treatment area clean to prevent infection of the lesion [9].

Secondly, invasive treatments including acupuncture have the potential to cause damage to the soft tissue, nerves and blood

vessels, so the practitioner must have anatomical structure knowledge. Especially when acupotomy is performed to incise soft tissue with the flat blade of the needle, and unlike the other Korean medicine treatment procedures acupotomy is invasive and comparable to minor surgery [10]. Therefore, a thorough explanation of the procedure and risks involved must be given to the patient and then informed consent by the patient given. It is also recommended that the treatment area for acupotomy is clearly marked with a medical marker so it does not wear off easily before treatment [11]. As the position of major nerves and blood vessels slightly change with a change in the patient's posture, it is important to set a specific posture beforehand, according to the treatment purpose [11].

Thirdly, to prevent the onset of pneumothorax, it is important to be anatomically well informed, and take caution when needling sensitive acupoints around the lung such as GB21, BL13, and BL15. As the result of analyzing 7 cases of pneumothorax that were consulted on for medical dispute mediation, (with the exclusion of 1 case where the exact acupuncture point was not given), 4 cases were related to needling the inside of the medial part of the scapula, and 2 cases were related to needling GB21. BL13 and BL15 are located inside the medial part of the scapula, and on the rhomboid muscle. As to the safe depth of needling BL13 and BL15, it has been reported to be  $5.17 \pm 0.32$  cm for BL13, and  $4.62 \pm 0.3$  cm for BL15 [12]. GB21 is an acupoint near the lung apex and Lee et al [13] reported the distance from the surface of the skin to the thoracic cavity between 3.4 cm and 3.9 cm. Chou et al [14] proposed the safe depth of needling GB21 according to gender and BMI. Depths of 4.0 cm (3.7-3.9 cm) for male underweight patients, 5.3 cm (5.1-5.6cm) for normal-weight patients, 6.4 cm (6.0-6.7 cm) for overweight patients, and 7.1 cm (6.8-7.5 cm) for obese patients were proposed. For female patients, depths of 3.4 cm (3.1-3.6 cm) in underweight patients, 4.9 cm (4.7-5.2 cm) in normal-weight patients, 5.8 cm (5.6-6.0 cm) in overweight patients, and 6.9 cm (6.5-7.2 cm) in obese patients were recommended. In clinical practice, acupuncturists must be familiar with anatomical knowledge, and the correct width and length of needle must be selected for controlled insertion to adequate depths accounting for the patient's build.

Fourthly, to prevent medical dispute cases involving hematomas, intake of anticoagulants must be checked prior to the medical examination and treatment. Among the 7 cases of medical disputes involving hematomas that were consulted on by the Korean Acupuncture and Moxibustion Medicine Society, patients in 3 cases were found to be taking antithrombotic medicine. If local bleeding is observed after removal of the needle, pressure should be applied to stop the flow of blood. If the patient complains of pain from larger hematomas, heat therapy should be applied to help with blood circulation [8].

Fifthly, bee venom therapy should only be performed after a mandatory skin test to check for sensitivity. The method for the skin test involves injecting a small amount of bee venom on the forearm (after disinfecting the area with an alcohol-soaked cotton ball), and checking for any allergic reaction such as rash or itching on the area, after 15 minutes. Of the 4 cases of medical dispute involved in bee venom that were consulted on by the Korean Acupuncture and Moxibustion Medicine Society, 3 cases were related to anaphylactic shock by systemic immediate type hypersensitivity to the bee venom. Bee venom therapy involves injecting the agent as a stimulant, and may cause an allergic reaction. Therefore, the hypersensitivity reaction should be thoroughly explained to the patient and guardian, and written informed consent is recommended. Also, treatment should be cautiously administered to patients who have had

cardiovascular disease, renal disease, severe insulin dependent diabetes, tuberculosis, syphilis, and gonorrhea, and female patients experiencing heavy bleeding during periods, or have the possibility of being or are pregnant [15]. When hypersensitive reaction occurs after bee venom treatment putting on an ice pack can alleviate some itching, and if circulatory problem occurs with blood pressure dropping to less than 90/60, or tachycardia over 120 beats, the patient should be immediately transferred to a medical facility where emergency treatment can be administered [16]. Bee venom therapy is generally started with a small dosage and gradually increased. Sweet BV (Melittin) is modified bee venom that can be used more safely in clinics as enzyme factors that act as allergens have been removed to prevent allergic reactions [15].

Sixthly, infection and scarring from burns must be given careful consideration when treating with moxibustion. All 5 cases of medical dispute over moxibustion, that were consulted to the Korean Acupuncture and Moxibustion Medicine Society, were related to burns. When administering indirect moxibustion, care must be taken to prevent burning the skin, (degeneration of tissue starts to show at over 50°C) [17]. The temperature of the moxibustion treatment must be checked by the Korean medicine doctor as well as the patient, because patients with diabetes for example may not feel the heat that could cause damage [9]. The first aid for a burn starts with cooling the area of the burn with cold running water for more than 10 minutes. Clothing that is on fire should be put out and removed immediately, but clothes that have already adhered to the wound should be left in place and removed by the specialist burn unit. Any blisters caused by a burn should be covered with clean gauze to prevent secondary infection and damage.

An important measure to prevent medical disputes over treatments other than acupuncture and moxibustion, is the practitioner having access to detailed patient medical records before treatment. Documenting what has been explained to the patient, including what treatment would be administered to the patient, benefits of the procedure and any potential side effects that may be encountered, may prevent a malpractice by negligence ruling. In addition, it helps practitioners to be well informed of legal knowledge related to medicine in case of medical disputes. Practicing medicine without a basic understanding of the duty of explanation and consent, and legal obligation of due care can increase the risk of medical dispute [18].

This study was performed to analyze the current status of medical disputes in the field of acupuncture and moxibustion, and provide basic data for guidelines to prevent them. However, in this study, only cases that were consulted by the Korean Acupuncture and Moxibustion Medicine Society (via the Association of Korean Oriental Medicine for medical dispute mediation) were analyzed, and it is hard to say whether the results of this study reflect the medical disputes in Korean. In addition, not all consulted cases involved in medical disputes were followed up to the actual court ruling (due to lack of data). Additionally, the analysis of medical disputes based on data that includes the outcome and liability of damages, as well as further study preparing for clinical guidelines to prevent medical disputes in specific departments, are warranted in the future.

## Conclusion

In 2017, the highest number of cases (23) were consulted on, and answered for medical malpractice. The treatment that had the highest number of cases involved acupuncture (54 cases; 67.5%), and cupping therapy (7 cases; 8.8%). The most frequent type of adverse event was local infection and inflammation (17 cases;

21.3%), and neurological symptoms (13 cases; 16.3%). Analysis of correlation of treatment methods and adverse events, showed that local infection and inflammation was the most frequent adverse event with 12 cases (22.2%). There were 16 cases (20.0%) that were considered as medical malpractice by the Korean Acupuncture and Moxibustion Medicine Society (from the total 80 cases that were answered).

## Conflicts of Interest

The authors have no conflicts of interest to declare.

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