

## Analysis of Medical Disputes in Korean Medicine : With a focusing on Korean medicine treatments in Korean Acupuncture & Moxibustion Medicine Society official documents

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**Background:** This paper was to investigate Korean medical disputes through the cases of asking Korean Acupuncture and Moxibustion Medicine Society(KAMMS) for medical consultation

**Methods:** In this study, it was investigated 66 medical disputes requested to KAMMS for medical consultation from April, 2013 to December, 2017. The cases of disputes were classified according to the year, month, sex, age, area, original disease, treatment method and type of occurrence.

**Results :** There were 66 cases from April, 2013 to December, 2017 that able to investigate. There were no annual increases and decreases or monthly trends in medical disputes. In characteristics of patients, female (53.03%) were more likely than male, and the age distribution was in in 50s (24.24%). It occurred in area, followed by Gyeongsang (33.33%), Gyeonggi-Incheon (30.30%), and Seoul (13.64%). The majority of original disease was musculoskeletal disease (81.82%), and treatment methods that have been assumed to cause medical disputes were 38 cases (57.58%) of acupuncture, followed by 12 cases (18.18%) of combined treatment. Analysis of occurred disease showed that 23 cases (34.85%) of musculoskeletal diseases were the most common, followed by 17 cases (25.76%) of infection. When original disease was musculoskeletal disease, the greatest type of occurrence was musculoskeletal disease (30.30%), but there was no statistical significance. Musculoskeletal disease was common after acupuncture (28.80%), and infection was common after combined treatment (12.10%). It was statistically significant. Although no statistically significant, pharmacopuncture tended to cause the immune response, while moxibustion tended to cause burns.

**Key Words :** medical disputes, medical accident, Korean medical disputes, Korean medicine treatment

### Introduction

Medical malpractice (accident) refers to a case in which acts by health and medical service personnel (diagnosis, examination, treatment, prescription, etc.)

cause damage to life, body, and property. According to Medical dispute medication and arbitration statistical year book published by Korea medical Dispute Medication and Arbitration Agency, the number of medical disputes due to medical malpractice annually

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has increased by an average of 11.7%, and it is expected on more increase resulted from generalization of medical information, change in relationship between doctors and patients [1]. It also may highlight social problems such as an increase in social costs, a tendency of defensive medical care, and a worse in relationship between doctors and patients [2].

In Korean Medicine, there are few cases of invasive treatment and there is no litigation benefit when considering the cost and period of litigation. Accordingly, it was considered that the settlement of the judicial dispute by the litigation didn't work [3].

This paper is to investigate medical disputes about acupuncture, moxibustion, cupping, pharmacopuncture through the cases of asking Korean Acupuncture and Moxibustion Medicine Society(KAMMS) for medical consultation, and be used as educational resource and basic data

## Materials and methods

### Materials

In this study, it was investigated 66 medical disputes requested to KAMMS for medical consultation from April, 2013 to December, 2017. The cases of disputes were classified according to the year, month, sex, age, area, original disease, treatment method and type of occurrence. It also used cross-tabulations to analyze correlations between original disease, treatment method and type of occurrence.

### Statistical analyses

Statistical analyses were performed with IBM SPSS program Ver. 12.0K (IBM Corp., USA). All measurements are expressed as frequency (percentage). Statistical significance level is  $p < 0.05$  and it was performed using Fisher's exact test.

## Results

### Annual status of medical disputes in Korean Medicine

From April, 2013 to December, 2017, it were total 66 cases requested to KAMMS for medical consultation, with 25 cases (37.88%) in 2014, followed by 10 cases (15.15%) in 2015 and 2016 (Fig.1).

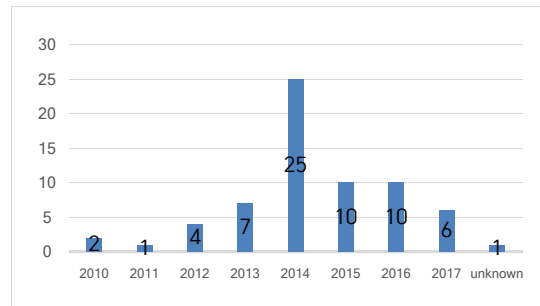


Fig. 1. Annual status of medical disputes in Korean Medicine  
The number means the number of cases.

### Monthly status of medical disputes in Korean Medicine

Monthly cases were the highest in July and September with 7 cases (10.6%) and the lowest in January with 2 cases (3.03%). 2 cases (3.03%) didn't indicate the exact month of occurrence (Fig. 2).

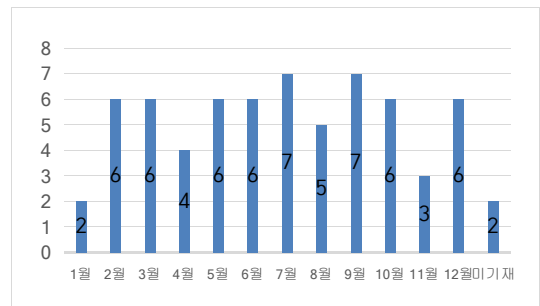


Fig. 2. Monthly status of medical disputes in Korean Medicine  
The number means the number of cases.

*Characteristics of patients*

Gender of patients was 23 cases (34.85%) for males, 35 cases (53.03%) for females, and 8 cases (12.12%) for unknown.

Age distribution was 0 case (0%), 3 cases (4.55%), 9 cases (13.64%), 10 cases (15.15%), 16 cases (24.24%), 7 cases (10.61%), 9 cases (13.64%), 2 cases (3.03%), and 10 cases (15.15%) in 10s, 20s, 30s, 40s, 50s, 60s, 70s, 70s, and unknown, respectively.

Area distribution was 9 (13.64%), 20 (30.30%), 6 (9.09%), 2 (3.03%), 4 (6.06%), 22 (33.33%), 2 (3.03%), and 1 case (1.52%) in Seoul, Gyeonggi-Incheon, Chungcheong, Gangwon, Jeolla, Gyeongsang, Jeju, and unknown, respectively (Tab. 1).

*Analysis of original diseases*

The majority of original disease was musculoskeletal disease (54 cases, 81.82%), followed by nervous disease (4 cases, 6.06%), digestive disease (2 cases, 3.03%), and unknown (2 cases, 3.03%)

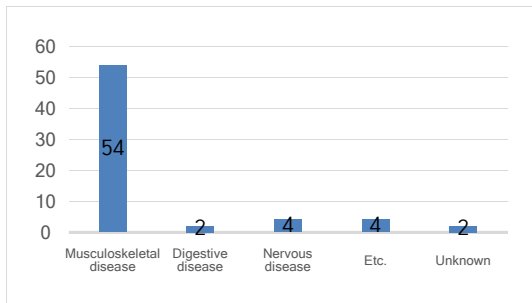


Fig. 3. Analysis of original diseases. The number means the number of cases.

*Analysis of treatments*

Treatment methods that have been assumed to cause medical disputes were 38 cases (57.58%) of acupuncture, followed by 12 cases (18.18%) of combined treatment, 6 cases (9.09%) of pharmacopuncture, 3 cases (4.55%) of moxibustion, and 3 cases (4.55%) of cupping (Fig. 4).

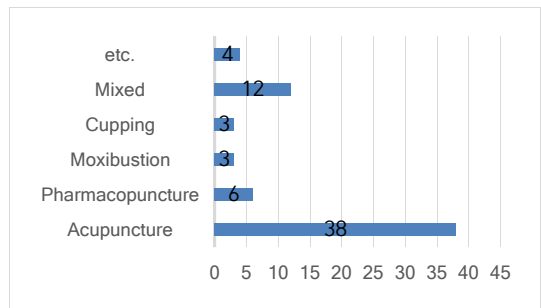


Fig. 4. Analysis of treatments. The number means the number of cases.

*Analysis of occurred diseases*

Analysis of the results after treatment showed that

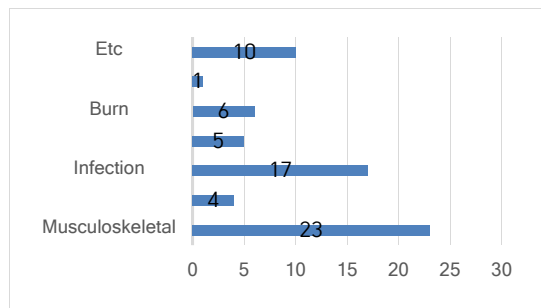


Fig. 5. Analysis of occurred diseases. The number means the number of cases.

Table 1. Characteristics of Patients

Gender	Male		Female		Unknown		Total			
	23		35		8		66			
Ages	10s	20s	30s	40s	50s	60s	70s	80s	Unknown	Total
	0	3	9	10	16	7	9	2	10	66
Area	Seoul	Gyeonggi-Incheon	Chung-Cheong	Gangwon	Jeolla	Gyeongsang	Jeju	Unknown	Total	
	9	20	6	2	4	22	2	1	66	

23 cases (34.85%) of musculoskeletal diseases such as nerve injury and hematoma were the most common, followed by 17 cases (25.76%) of infection.

*Analysis of correlations between original disease, treatment method and type of occurrence*

It used Fisher’s exact test to analysis correlations between original disease, treatment method and type of occurrence. When original disease was musculoskeletal disease, the greatest type of occurrence was

musculoskeletal disease, but there was no statistical significance (Tab. 2). There were 19 cases (28.80%) occurred musculoskeletal diseases in acupuncture, and 8 cases (12.10%) occurred infection in combined treatment (Tab. 3).

**Discussion**

According to Medical dispute medication and arbitration statistical year book, the number of medical disputes has continuously increased except for 2015

**Table 2.** Type of Occurrence according to Original Diseases

Occurrence Original diseases	Musculoskeletal disease	Allergy	Infection	Pneumothorax	Burn	Fracture	Etc.	Total
Musculoskeletal disease	20 (30.3%)	4 (6.1%)	15 (22.7%)	5 (7.6%)	3 (4.5%)	1 (1.5%)	6 (9.1%)	54 (81.8%)
Digestive disease	1 (1.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.5%)	0 (0.0%)	0 (0.0%)	2 (3.0%)
Nervous disease	1 (1.5%)	0 (0.0%)	1 (1.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (3.0%)	4 (6.1%)
Unknown	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.5%)	0 (0.0%)	1 (1.5%)	2 (3.0%)
Etc.	1 (1.5%)	0 (0.0%)	1 (1.5%)	0 (0.0%)	1 (1.5%)	0 (0.0%)	1 (1.5%)	4 (6.1%)
Total	23 (34.8%)	4 (6.1%)	17 (25.8%)	5 (7.6%)	6 (9.1%)	1 (1.5%)	10 (15.2%)	66 (100.0%)

**Table 3.** Type of Occurrence according to Treatments.

	Musculoskeletal disease	Allergy	Infection	Pneumothorax	Burn	Fracture	Etc.	Total
Acupuncture	19 28.80%	0 0.00%	7 10.60%	5 7.60%	0 0.00%	0 0.00%	7 10.60%	38 57.60%
Pharmacopuncture	1 1.50%	4 6.10%	1 1.50%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	6 9.10%
Moxibustion	0 0.00%	0 0.00%	0 0.00%	0 0.00%	3 4.50%	0 0.00%	0 0.00%	3 4.50%
Cupping	0 0.00%	0 0.00%	1 1.50%	0 0.00%	1 1.50%	0 0.00%	1 1.50%	3 4.50%
Mixed	2 3.00%	0 0.00%	8 12.10%	0 0.00%	0 0.00%	0 0.00%	2 3.00%	12 18.20%
Etc.	1 1.50%	0 0.00%	0 0.00%	0 0.00%	2 3.00%	1 1.50%	0 0.00%	4 6.10%
Total	23 34.80%	4 6.10%	17 25.80%	5 7.60%	6 9.10%	1 1.50%	10 15.20%	66 100.00%

from 503 cases in 2012 to 1907 cases in 2016. The percentage of medical disputes in Korean Medicine has decreased steadily except for 2015 from 3.6% in 2012 to 2.1% in 2016. There was no variation trend about adjustment amount for agreement, it was greater in disputes by herbal medicine than disputes by acupuncture or moxibustion.

The objective of this paper is for a basic research, analyzing medical disputes in Korean Medicine and finding a way to reduce it.

As a result analyzing cases requested to KAMM for medical consultation, there were 66 cases from April, 2013 to December, 2017 that able to investigate. According to Korea Consumer Agency, the number of medical disputes in Korean Medicine increased from 20 cases in 2010, 36 cases in 2011, 21 cases in 2012, 24 cases in 2013, and 21 cases in 2013, but the percentage was no increase or decrease [4]. This is consistent with the fact that there were only 66 cases of medical disputes related with acupuncture, moxibustion, cupping, and pharmacopuncture, requested to KAMMS over the past 5 years (Fig. 1). However, according to Medical dispute medication and arbitration statistical yearbook, the number of acupuncture related cases among the total 101 cases in Korean Medicine from 2012 to 2016 was 47 cases (46.53%), which indicate that there are meanings to prevent medical accident in acupuncture treatment [5]. In 2014, it was 25 cases that was the greatest number, which is consistent with the fact that the number of cases increased to the highest of 43 cases (28.86%) in 2014 and decreased thereafter in other study [6].

Monthly status topped the list with 7 cases (10.60%) in July and September, while other 6 months showed no significant difference with 6 cases (9.06%) (Fig.2). It was similar with other study, but different form the reported an increase in the trend during the winter in White paper to see the Korean Medicine disputes

cases [7].

In characteristics of patients, 35 (53.03%) female were more likely than 23 (34.85%) male, and the age distribution was in 16 patients (24.24%) in 50s and 10 patients (15.15%) in 40s. It was most common in middle aged and elderly people. This was in contrast to the previous comparison of Korea Medical Dispute Medication and Arbitration Agency's 2016 study, which showed the proportion of males was more than females (50.3% ~ 52.3%) excluding in 2015 (49.7%). It was also different from the fact that distribution of age groups in 2016 followed by those in their 50s (23.0%) and those in their 60s (18.9%). Is was consistent with the fact that females use Korean medical services than males, and suggests that both medical and Korean medical services are more frequently used in their 50s.

According to the area status (Tab. 1), area distribution was 22 (33.33%), 20 (30.30%), and 9 cases (13.64%) in Gyeongsang, Gyeonggi-Incheon, and Seoul, which showed a similar trend in Cha's study that the capital area was 70.5% and Gyeongsang area was 17.4%. In Korea Consumer Agency Consumer's damage cases year and case book, it was also similar to medical disputes of both medical and Korean medical services in the capital area (62.5%) and Gyeongsang area (19.6%) [8]. It suggests that medical disputes involving Korean Medicine, as well as the overall health service, are more in the densely populated areas.

The majority of original disease was musculoskeletal disease (54 cases, 81.82%), which are consistent with the fact that musculoskeletal patients account for the largest proportion of Korean Medicine Hospitals and clinics, clinically. Treatment methods that have been assumed to cause medical disputes were 38 cases (57.58%) of acupuncture, followed by 12 cases (18.18%) of combined treatment, which are also consistent with the fact that acupuncture is used most in Korean Medicine Hospitals and clinics for musculoskeletal

diseases. Analysis of the results after treatment showed that 23 cases (34.85%) of musculoskeletal diseases such as subcutaneous hemorrhage, aggravation of pain, nerve injury, and hematoma were the most common, because of the largest number of musculoskeletal patients. In addition, there were 17 cases of infection (25.76%), which might reflect inflammation caused by carelessness of disinfection before and after acupuncture, pharmacopuncture, and cupping.

In type of occurrence according to original disease, when original disease was musculoskeletal disease, the greatest type of occurrence was musculoskeletal disease such as aggravation of pain and new cases of musculoskeletal disease, but there was no statistical significance. Other disease showed no tendency. Musculoskeletal disease was common after acupuncture in 19 cases (28.80%), and infection was common after combined treatment in 8 cases (12.10%). It was statistically significant. Although no statistically significant, pharmacopuncture tended to cause the immune response, while moxibustion tended to cause burns due to thermal stimulation.

## Conclusion

An analysis of the cases that requested to KAMMS for medical consultation from April, 2013 to December, 2017 resulted in the following conclusions.

1. Among the all of cases requested to KAMMS for medical consultation, there were 66 cases from April, 2013 to December, 2017 that able to investigate
2. There were no annual increases and decreases or monthly trends in medical disputes. In characteristics of patients, female (53.03%) were more likely than male, and the age distribution was in in 50s (24.24%). It occurred in area, followed by Gyeongsang (33.33 %),

Gyeonggi-Incheon (30.30%), and Seoul (13.64%).

3. The majority of original disease was musculoskeletal disease (81.82%), and treatment methods that have been assumed to cause medical disputes were 38 cases (57.58%) of acupuncture, followed by 12 cases (18.18%) of combined treatment
4. Analysis of occurred disease showed that 23 cases (34.85%) of musculoskeletal diseases were the most common, followed by 17 cases (25.76%) of infection.
5. When original disease was musculoskeletal disease, the greatest type of occurrence was musculoskeletal disease (30.30%), but there was no statistical significance. Musculoskeletal disease was common after acupuncture (28.80%), and infection was common after combined treatment (12.10%). It was statistically significant. Although no statistically significant, pharmacopuncture tended to cause the immune response, while moxibustion tended to cause burns.

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