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Trend of Malpractice Litigation against Neurosurgeons in Japan: An Analysis of Disclosed Database by Courts in Japan from 2001 through 2015

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Abstract

Following the modern raising of public awareness, the numbers of malpractice litigation are increasing in the health care delivery system in Japan despite the extensive efforts of physicians. Authors reviewed the issues of litigation and the reasons for court decision from the healthcare-related negligence lawsuits in the past 15 years in Japan and investigated the cautionary points for reducing potential litigation. Healthcare-related negligence lawsuits between January 2001 and December 2015 were retrieved and sorted in each clinical field from the database in Courts in Japan and investigated on the proportional factors of the claims and court decisions in the neurosurgical field. During the period, 446 of healthcare-related court decisions including 41 against neurosurgeons (9.2%) were retrieved. Three of 41 decisions retrieved were decisions to retries for lower court decisions. In 38 claims against the neurosurgeons, 26 identified the negligence and 12 dismissed. In 26 decisions in favor of the plaintiffs, identified negligence in diagnosis in 4, clinical judgment in 3, technical skills in 5, clinical management in 7 and process of informed consent in 7. Five out of 18 decisions after 2006 were identified as negligence in an informed consent process, and additional one, who was mainly identified in inadequate technical skills also identified existing an inadequate informed consent process as a fundamental cause of litigation. Neurosurgeons are a higher risk group for malpractice litigation in Japan and adequate informed consent is important to reduce the risk of litigation.

Key words: court decision, medical malpractice, lawsuit, litigation, neurosurgery

Introduction

Modern societal evolution raises public anticipation for health care system, whereas raises public awareness for safety in the health care system. The healthcare-related negligence lawsuits in Japan have been increased in number up to over 800 a year and surgery takes one sixth of the litigation.[1,2] Neurosurgeon is a higher risk group for malpractice litigation, and to prevent the claims is an important subject for neurosurgeons.[3] Authors reviewed the past healthcare-related negligence lawsuits in Japan and investigated the cautionary points for reducing potential litigation.

Materials and Methods

Sixty thousands of past court decisions are provided in the web site of Courts in Japan. Healthcare-related negligence lawsuits from January 2001 to December 2015 were retrieved from the database with the keywords of "health care" and "negligence lawsuit". All the retrieved court decisions, excluding the results out of the medical malpractice, were retrieved and sorted into 20 clinical fields from the documents. Proportions of the claims, issues of litigation, negligence identified and decisions were listed from the documents of the neurosurgery-related court decisions and investigated on possible factors for reducing the risk for litigation.

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Results

Retrieved result from database

Eight hundred forty matched data, 26 court decisions from Supreme Court, 3 from High Courts and 811 from District Courts were retrieved from the database. In all retrieved court decisions, 11 decisions delivered from Supreme Court, none

from High Courts, 435 from Distinct Courts were found to be the healthcare-related negligence lawsuits. In total, 446 healthcare-related decisions retrieved, 79 were decisions related to internal medicine including gastrointestinal and cardiovascular medicine, 32 were pediatrics and psychiatry, 58 were general surgery including gastrointestinal and cardiovascular surgery, 41 were neurosurgery, 37 were orthopedics, 75 were obstetrics and gynecology, 46 were other surgical field including dermatology, plastic and cosmetic surgery, urology, ophthalmology and otolaryngology, 4 were anesthesiology, 14 were dentistry, 45 were other medical fields such as emergency medicine or general practice and 15 were related to nursing and medical care (Fig. 1). Number of the court decisions retrieved was high in the period of 2002 to 2007 and decreased in number thereafter and a few after 2013. Annual changes of the lawsuits in each clinical field are shown in Fig. 2.

Details of judicial precedents related to neurosurgery

In 41 court decisions related to neurosurgery, 3 were results of retrial for other retrieved decisions and total numbers of cases were 38. Diagnostic property of the patients was subarachnoid hemorrhage in 8, unruptured aneurysm in 11, arteriovenous malformations in 2, cerebral ischemic lesions in 6, pituitary and intracranial neoplastic lesions in 5, head trauma in 3 and other pathogenesis in 3. Principal issues of the litigation were diagnosed in 4, clinical judgment in 4, technical skills in 26 and clinical management in 4. In 38 final court decisions, 26 were identified as the negligence in defendant and 12 were dismissed. In 26 decisions in favor of the plaintiffs, identified negligence in diagnosis in

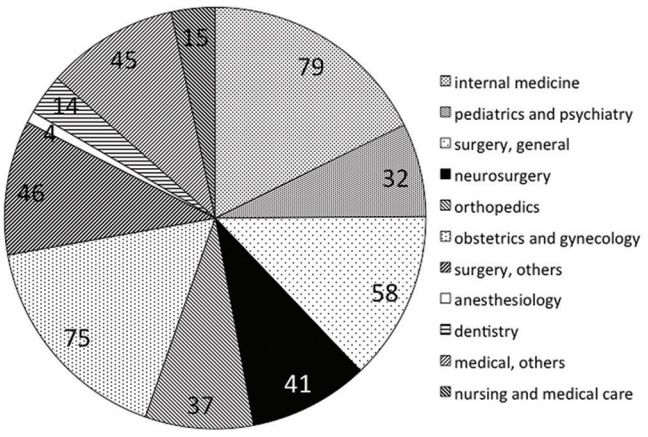

Fig. 1 Number of retrieved court decisions during the 15-year-period is demonstrated according to the clinical fields.

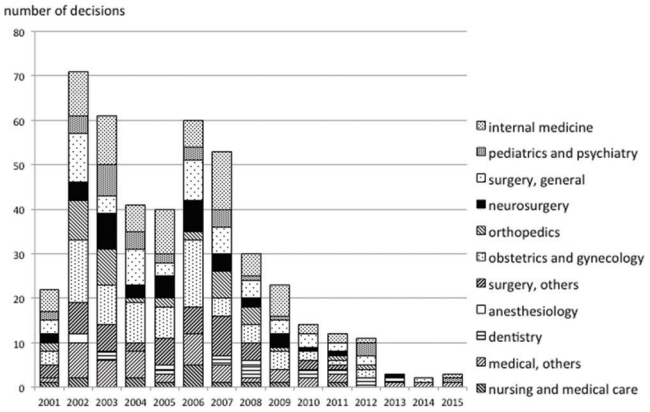

Fig. 2 Annual changes of retrieved court decisions during the 15-year-period are demonstrated according to the clinical fields.

4, clinical judgment in 3, in technical skills in 5, clinical management in 7 and process of informed consent in 7. One decision mainly identified the inadequate technical skills in 2009, also identified inadequate informed consent process as a primary cause of the claim (Table 1).

Discussion

Since the modern changes in public awareness, healthcare-related lawsuits is increasing in Japan. According to the web site of Courts in Japan, annual newly filed claims were increased from 678 in 1999 to 1,110 in 2004, then once decreased to 732 in 2009 depended on the impact of several criminal lawsuits related to the healthcare system.[4] Since 2009, annual newly filed claims are increasing in number again up to 836 in 2015. Claims related to surgery was 121 in 2015 and it takes one sixth of all the healthcare-related litigation[1, 2] (Fig. 3).

Neurosurgeons are known as a high-risk group for malpractice litigation in western countries. Jena et al. reported that 7.4% of physicians annually had a claim and significant in neurosurgeons up to 19.1%.[3] Rovit et al. reported that 156 (56%) of 280 cases claimed against neurosurgeons in New York State were primarily with the spinal lesions and concluded that elective spinal surgery cases constitute the majority of litigation.[5] In Japan, the proportion of the pathogenesis is different and spinal lesions are less treated by neurosurgeons. However, 41 (9.2%) of 446 court decisions retrieved are related to neurosurgeons, it takes 41% of retrieved precedent related to surgery in our series. This result suggests that Japanese neurosurgeons are also a high-risk group for malpractice litigation.

Table 1 Detailed description of 41 court decisions retrieved from the database of court in Japan

No.	Year	Age	Diagnosis	Primary issue		Result	Court	Negligence identified		Payment*	Retry
1	2001	52	unrupture An, VA dissecting	technical skill	balloon		district	technical skill	occlusion site	80	
2	2001	60	trauma, ASDH	clinical judgment	timing of surgery		district	clinical judgment	prompt surgery	20	
3	2002	52	SAH	diagnosis	oversight		high	clinical judgment	In-hospital introduction	50	
4	2002	61	unrupture An, ICA	technical skill	coilling		district	informed consent	accountability violation	66**	→ 23
5	2002	58	unrupture An, ACoA	technical skill	clipping		district	informed consent	accountability violation	3	
6	2002	58	unrupture An, IC-AChA	technical skill	clipping		district	technical skill	vessel occlusion	76**	→ 9
7	2003	39	SAH	management	infection		district	management	MRSA management	67	
8	2003	53	unrupture An, IC-AChA	technical skill	clipping		high	informed consent	accountability violation	10	
9	2003	58	unrupture An, IC-AChA	technical skill	clipping		district	technical skill	vessel occlusion	76	
10	2003	17	tumor, pituitary	technical skill	surgery		district	diagnosis	preoperative diagnosis	66	
11	2003	69	SAH	clinical judgment	timing of surgery		district	diagnosis	diagnosis of ruptue site	23	
12	2003	14	tumor, pituitary	technical skill	surgery		district	management	monitoring	64	
13	2003	57	ischemic, infarction	technical skill	medication		district	management	blood pressure control	47	
14	2003	74	SAH	technical skill	angiogram	dismiss	high				
15	2004	53	SAH	technical skill	angiogram	dismiss	high				
16	2004	31	epilepsy	management	asphyxia	dismiss	district				
17	2004	43	AVM	technical skill	embolization	dismiss	district				
18	2005	77	unrupture An, IC-PComA	technical skill	coilling	dismiss	district				
19	2005	49	tumor, mucocele	technical skill	surgery	dismiss	district				
20	2005	70	trauma, ICH	clinical judgment	examination		high	management	observation	50	
21	2005	32	epilepsy	management	medication		district	management	observation	62	
22	2005	52	trauma, CSDH	technical skill	surgery	dismiss	district				
23	2006	61	unrupture An, ICA	technical skill	coilling		Supreme	informed consent	accountability violation	8	
24	2006	81	ischemic, infarction	management	medication		Supreme	management	nosocommial infection	ND	

(*Continued*)

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Table 1 (Continued)

No.	Year	Age	Diagnosis	Primary issue		Result	Court	Negligence identified		Payment*	Retry
25	2006	16	AVM	technical skill	embolization		district	technical skill	catheter manipulation	72	
26	2006	52	SAH	technical skill	clipping		district	clinical judgment	reoperation	78	
27	2006	56	ischemic, ICA occlusion	technical skill	bypass		district	informed consent	accountability violation	8	
28	2006	11	ischemic, Moyamoya	clinical judgment	bypass	dismiss	district				
29	2006	63	ischemic, ICA stenosis	technical skill	stenting		district	informed consent	accountability violation	2	
30	2007	50	ICH	technical skill	medication	dismiss	district				
31	2007	75	tumor, meningioma	technical skill	gamma knife		district	management	observation	9	
32	2007	57	SAH	diagnosis	oversight		district	diagnosis	oversight	65	
33	2007	56	unrupture An, ICA	technical skill	coilling	dismiss	district				
34	2008	54	unrupture An, ACoA	technical skill	clipping	dismiss	district				
35	2008	43	SAH	technical skill	clipping		district	informed consent	accountability violation	2.5**	→ 36
36	2009	43	SAH	technical skill	clipping		high	technical skill	vessel occlusion	17	
37	2009	37	ischemia, infarction	diagnosis	oversight	dismiss	district				
38	2009	59	unrupture An, MCA bilateral	technical skill	clipping		district	informed consent	accountability violation	33	
39	2010	7	tumor, ependymoma	diagnosis	oversight		district	diagnosis	oversight	48	
40	2011	72	unrupture An, ICA	technical skill	clipping		district	technical skill	vessel occlusion	50	
41	2013	53	unrupture An, ND	technical skill	coilling		district	informed consent	accountability violation	4	

AChA: anterior choroidal artery, ACoA: anterior communicating artery, An: aneurysm, ASDH: acute subdural hematoma, AVM: arteriovenous malformation, CSDH: chronic subdural hematoma, ICA: internal carotid artery, ICH: intracerebral hemorrhage, MCA: middle cerebral artery, ND: not described, PComA: posterior communicating artery, SAH: subarachnoid hemorrhage, VA: vertebral artery, *: million JPY, **: decision changed in retry.

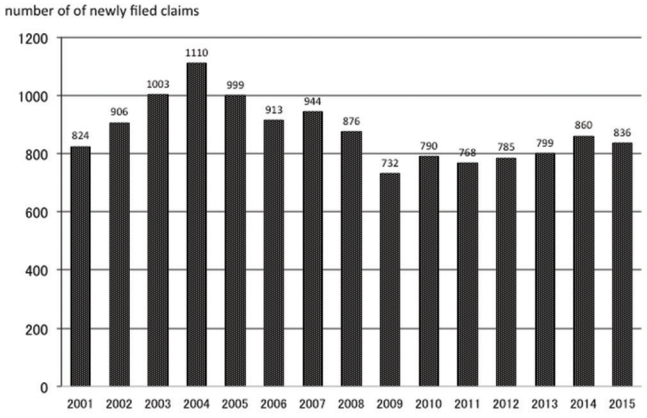

Fig. 3 Annual change of newly filed claims in Japan during the 15-year-period is demonstrated. (Created from disclosed data in Court in Japan; http://www.courts.go.jp/saikosai/vcms_lf/2016053101ijikankei.pdf).

In the 38 court decisions retrieved, 19 cases (50%) were involving cerebral aneurysm (8 ruptured and 11 unruptured) and considered as the aneurysmal cases might be the high-risk group for malpractice litigation. In 8 cases with subarachnoid hemorrhage (SAH) due to ruptured cerebral aneurysms, 2 were filed for malpractice in the diagnosis of subarachnoid hemorrhage, one in judgment for timing of surgery, 2 in technical skills for surgery, 2 in technical skills for diagnostic angiography and one in management of bacterial infection. All of 11 cases involving unruptured aneurysms were filed for malpractice in technical skills in surgery or endovascular procedures. In United States, Gupta et al. investigated the malpractice litigation related to the management of brain aneurysms from the database of WestLawNext and concluded that malpractice claims related to the management of brain aneurysms were likely to point a failure to diagnose and/or a failure to timely treat, but less to procedural error.[6] McLaughlin et al. reported that top 3 contributing factors for claims against neurosurgeons are clinical judgment, technical skill and communication.[7] In our series, claims against the diagnosis or clinical judgment are found only in cases of SAH and claims against the technical skills are the most common issue especially in cases involving unrpurtred aneurysms in Japan. Cases with unruptured aneurysms should be managed as a high-risk group for malpractice litigation.

In this series, 26 out of 38 decisions (68%) identified the negligence and 12 were dismissed. However, according to the disclosed data in Courts in Japan, the rate of claims allowed is 20 to 45% during the period. In the 26 decisions identified the negligence, 4 identified negligence in diagnosis, 3 identified in clinical judgment, 5 identified in technical skills, 7 identified in clinical management and 7 identified in the process of informed consent. In 26 court decisions mainly issued to the negligence in technical skills, only 5 identified the issue. In the remaining 21 court decisions, one identified negligence in the process of diagnosis, one identified negligence in clinical judgment, 3 identified negligence in clinical management, 7 identified inappropriate processes for informed consent and 9 were dismissed. All 7 decisions based on the inappropriate informed consents were claims issued to the malpractice in technical skills. According to the previous manuscript reported by Kuwabara et al., negligence in technical skills or inappropriate informed consent is highly identified but negligence in diagnosis or clinical judgment is lower in Japanese court.[8] In our series, 5 out of 18 decisions after 2006 identified negligence in the informed consent process, and another decision based on the inadequate technical skills also identified inadequate informed consent process as a primary cause of the claim. In our series, claims issued to the technical failure are less possible to be identified in the court and tend to decide based on the findings of the informed consent process. Oppositely, we found 2 court decisions dismissed the litigation based on the findings of existing well-described medical records and documents concerning the informed consent. Exact recording of the process of the informed consent by the physicians might play an important role in the lawsuit.

In 26 decisions, courts decided in favor of the plaintiffs, the compensation for damages are ranged two to eighty million Japanese Yens (JPY). Two of 4 decisions identified the negligence in diagnosis, 2 of 3 decisions in clinical judgment, 4 of 5 decisions in technical skills, 4 of 6 decisions in clinical management and none of 7 decisions in informed consent decided the compensation for damages over 50 million JPY excluding court costs. Oppositely, 6 of 7 decisions identified the negligence in the informed consent process, payment was less than 10 million JPN (Fig. 4). In the United States, total costs for the claims are biggest in the decision for technical skill identified.[7] In Japan, compensations for claims identified the negligence in diagnosis, technical skills or clinical management tends to be bigger, despite the number of decisions in these reasons is decreasing in number. Payment for the negligence in informed consent tends to be lower; however, decisions identified the negligence is increasing

in number. Being the informed consent is considered to be an important process for exercising the right of self-determination in the lawsuits, if the negligence identified to be reflected the decision of the patient seriously, the bigger payment might be identified. Oppositely, in case appropriate process for informed consent is identified with existing well-described record, negligence was dismissed. Exact documentation and recording in the informed consent process is important for preventing the litigation.

This study has several limitations. All the court decisions are not disclosed in the database of Courts in Japan and only the selected court decisions are disclosed without certain criteria. In this database, over 40 court decisions are disclosed annually until 2007, which decreased year by year after 2008 and a few after 2013. The proportion of the decisions disclosed is ranged one to 18 percent in all decisions (Fig. 5). Moreover, cases settled or retracted which takes a half of all claims[9] and a large number of cases resolved with the plaintiffs' abandon or the parties' accept prior to trials are not included in this database.

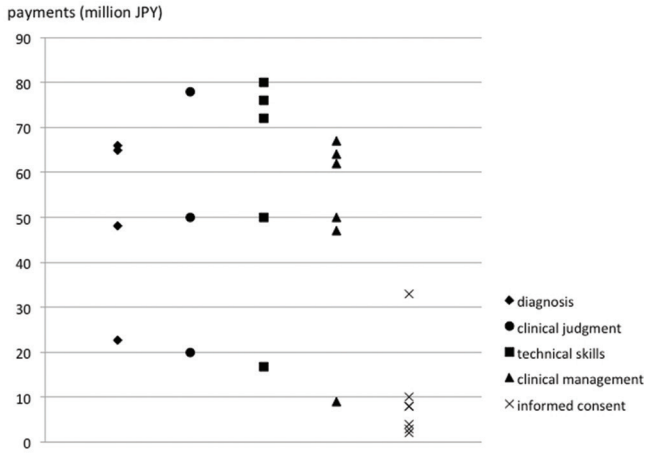

Fig. 4 Range of payments in each identified negligence. Payments decided in each precedent are demonstrated according to the negligence identified.

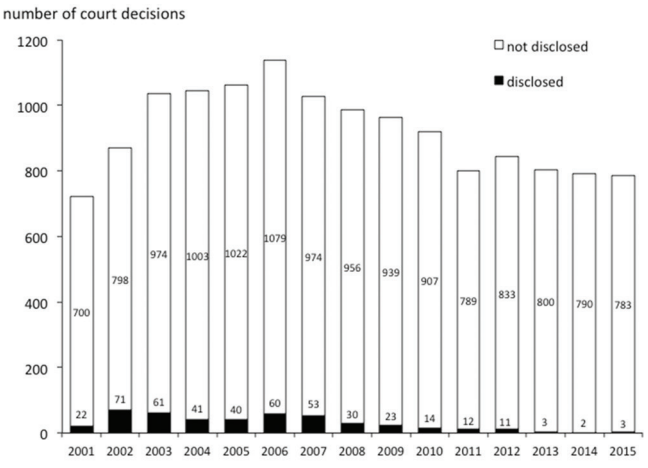

Fig. 5 Proportion of court decisions disclosed is ranged one to 18 percent in all decisions. (Created from disclosed data in Court in Japan; http://www.courts.go.jp/saikosai/vcms_lf/2016053101ijikankei.pdf).

Conclusions

Neurosurgery is in a high-risk group of clinical specialties to be claimed for malpractice litigation. Aneurysmal treatment, especially for unruptued aneurysm treatment has a higher-risk group for litigation. Malpractice in technical skills is hard to be identified in the court, beside the malpractice in the process of informed consent tends to be identified in the court in Japan. Exact documentation and recording in the informed consent process is important to prevent the litigation.

Conflicts of Interest Disclosure

Authors have no conflicts of interest with regard to submit the manuscript and authors who are members of the Japan Neurosurgical Society (HN and KH) completed the registration of online Self-reported COI Disclosure Statement Forums through the website for the Japan Neurosurgical Society.

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