

*Perinatal Malpractice Litigation and Midwives' Responses:
Risk Management and Legal Analysis*

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Abstract

Childbirth presents a variety of risks, such as sequelae or death of mother and child. Child birth associated risk increases when medical complications. Quality care by healthcare professionals is necessary to minimize these risks. Diagnosis errors, delays, and poor communication are considered childbirth malpractice; patients usually take legal action in these cases. Studies analyzing court cases over the past two decades have shown that inadequate labor progress recording and insufficient preservation methods lower the value of the evidence. Moreover, it is important not to overlook potential turning points where adverse events can be avoided. This study explored medical errors and their prevention, focusing on midwives. The study collected and analyzed cases of malpractice from 2019 to 2023 using the Pm SHELL model. In a legal database (TKC Law Library) search for “medical case law” and “midwives” from April to September 2023 found 19 cases, three cases in which the midwife’s actions and circumstances were described were identified and selected. A “delay in reporting from the midwife to the doctor” was considered as a common factor in all three cases. In Case-1, the report was made; however, important information was missing. In Case-2, incorrect decisions were made due to inappropriate cardiotocogram (CTG) placement. In Case-3, the problem occurred at the time of reporting, wherein one of the two midwives interrupted the report to the doctor and said that “the care for the patient is finished, so no further advice is needed. Following which, the doctor did not check the patient. In Case-1, education and training is needed to improve the midwife’s judgment and their understanding of protocols as following them can reduce judgment errors. In Case-2, real-time monitoring with CTG by multiple healthcare providers is required to ensure a rapid response system. In Case-3, midwife– obstetrician communication and collaboration should be standardized.

Keywords: Cerebral Palsy, Gynecology, Midwives, Obstetrics, Uterine Rupture

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Introduction

Premature separation of the normally implanted placenta, uterine rupture, and cerebral palsy are risks associated with childbirth. These conditions sometimes lead to serious sequelae and even death of the mother and fetus or newborn (Japan Society of Obstetrics and Gynecology/Japan Association of Obstetricians and Gynecologists, 2023). Medical malpractice during childbirth can further increase these risks (Japan Council for Quality Health Care, 2023). Well-functioning healthcare teams are needed to provide quality care to minimize these risks (Vincent, 2015). It is also particularly important that doctors and midwives work together during childbirth to protect the health and safety of the mother and child.

The midwife monitors the progress of delivery and reports any abnormalities to the doctor for appropriate treatment. Previous research of medical malpractice suggests that adverse outcomes can be avoided if timely and appropriate action is taken (Jonsson, 2007). Patients often take legal action when medical malpractice occurs (Disposition of Medical Litigation Cases and Average Length of Trial, 2022). In relation to medical litigation cases (in district courts) in Japan by medical specialty, there were 51 cases in obstetrics and gynecology in 2021 (Number of Medical Litigation Cases (District Court) by Medical Specialty, 2022).

Misdiagnosis, a delay in appropriate treatment, and poor communication has been identified as causes of medical malpractice during childbirth (Learning from Court Cases, 2022). One study analyzing court cases over the past 20 years with a focus on midwives found that it is important to prevent recurrence by applying measures to avoid missing turning points where adverse events can be avoided (Yamazaki, 2023). This study also found that inadequate data recording and preservation methods cast doubt on the value of the evidence (Yamazaki, 2022).

It is important to continue medical safety education for midwives, and in doing so, it is necessary to pay attention to recent trends. Identifying trends can also be used as a reference when considering specific improvements and measures.

The aim of this study was to examine the factors that led to the occurrence of medical errors and preventive measures, focusing on cases involving midwives from recent medical malpractice lawsuits during childbirth.

Methods

This study used the Japanese legal database, TKC Law Library, to collect and analyze perinatal medical malpractice court cases from 2019 to 2023.

A search using the keywords “medical precedents” AND “midwives” for the period April-September 2023 found 19 court cases. Of these, three cases describing the midwives’ actions and circumstances in chronological detail were selected for study. The other 16 cases were removed because of insufficient information regarding their involvement with midwives. The P-mSHELL model was used for analysis.

The P-mSHELL model is an analytical framework for understanding factors in medical accidents. It is an extension of the SHELL model, which is widely used in aviation to analyze human factors issues, and includes P: Patient, m: Management, S: Software, H: Hardware, E:

Environment, and L: Liveware (individual/team). The model helps predict risks in healthcare settings by considering several factors. It has been used in various studies to analyze safety weaknesses in clinical practice and to develop preventive measures (Kato, 2018).

Results

A P-mSHELL model analysis was conducted for the three cases under study, focusing on the negligence of the midwife and identifying the case outline, the issues, and the court’s decision on the issues.

1. Case 1 (2023 District Court Decision)

1) Case Outline

This is a case of a first-time mother with painless delivery after labor induction.

The doctor judged that she was in a state of fetal distress, with weak labor, and inadequate abdominal pressure, and performed vacuum delivery. The infant’s Apgar score was 9 at 1 min and 9 at 5 min and was normal.

0:20 am: The midwife observing the neonate telephoned the doctor to report that the SpO₂, respiratory rate, and heart rate were normal. The child’s breathing effort was increased and listless, but she did not report facial cyanosis, poor general color, or abnormal breathing.

2:10 am: The neonate had marked pallor, weak breathing, and the SpO₂ decreased to 80–70 %. There was bradycardia and no muscle tone; therefore, the midwife started bag-valve-mask ventilation with supplemental oxygen and reported the situation to the doctor by telephone. The neonate was transferred to another hospital and treated for a subgaleal hematoma diagnosis; however, the infant died without benefiting from the treatment.

2) Issue

Was the midwife obliged to report the facial cyanosis, poor general color, and abnormal breathing to the doctor at 0:25 am?

3) The Court’s Decision

The midwife should have reported the facial cyanosis, poor general coloration, and abnormal breathing to the doctor at around 0:25 a.m.; thus, there is a causal link between this situation and the newborn’s death.

| Case 1 | P-mSHELL | Factors |
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| 2:10 am: The midwife observing the neonate telephoned the doctor to report that the SpO ₂ , respiratory rate and heart rate were normal and that The child’s breathing effort was increased and | P:Patient | The baby was born by vacuum delivery because of a tendency to fetal distress during painless delivery. A subgaleal hematoma was discovered on arrival at the hospital. |
| | M:Management | Clinic In the absence of a doctor, the system required a report by telephone. |

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| listless, but she did not report facial cyanosis, poor general color, and abnormal breathing. | S:Software | The midwife was recording the vital signs of the newborn, but the doctor was not present to assess them. |
| | H:Hardware | On the doctor's orders, the newborn was placed in an incubator, but his temperature remained low and was not adequately controlled. |
| | E:Environment | In the absence of a doctor, a midwife was present. |
| | L:Liveware [individual] | The midwife observed the newborn. the infant had a vacuum delivery, and a subgaleal hematoma was anticipated. The midwife reported SpO ₂ , etc. to the doctor by telephone. The midwife did not report information to the doctor although the patient had facial cyanosis, poor general color, and abnormal breathing, which had previously worsened. |
| | L:Liveware [team] | The doctor received a report from the midwife on the SpO ₂ and other data, judged that there was transient tachypnea and instructed the midwife to continue monitoring the SpO ₂ , accommodate the infant in an incubator for monitoring, and to administer oxygen if necessary. The neonate was not examined until a telephone call at 2:10 a.m. |

2. Case 2 (2021 District Court Decision)

1) Case Outline

This is the case of a woman who attempted delivery by trial of labor after cesarean delivery.

1.50 am to 2.10 am: the fetal heart rate tracing showed signs of fetal distress, but the midwife did not recognize it as abnormal and did not report it to the doctor.

3:00 am: the midwife contacted the doctor as the baby became irritable.

3.15 am: the doctor arrived to the delivery room.

4:00 am: the decision was made to perform an emergency cesarean section because the fetal heart rate had decreased. It was decided that the cesarean section could not wait, therefore, vacuum delivery was performed with fetal compression.

The neonate was pallid, not moving or breathing, and had no response to stimuli.

The physician performed endotracheal intubation and other resuscitation procedures on the neonate and subsequently transferred him to another hospital.

The neonate developed sequelae due to hypoxic encephalopathy and died two years later.

2) Issue

Did the midwife breach her duty of care by requesting the presence of a doctor?

3) The Court’s Decision on the Issue

The fetal heart rate tracing from 1.50 am to 2.10 a.m. is a level 4 equivalent to fetal distress, but the midwife did not consider the fetal heart rate tracing on the cardiotocograph (CTG) to be abnormal and did not report it to the doctor or request a witness, thus breaching her duty of care.

| Case 2 | P-mSHELL | Factors |
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| 1:50 am to 2:10 am: The fetal heart rate tracing showed signs of fetal distress, but the midwife did not recognize it as abnormal and did not report it to the doctor. | P:Patient | Fetal heart rate tracings showed signs of fetal distress. The baby was born in a state of severe neonatal distress. |
| | m:Management | CTG was applied intermittently. The nighttime delivery was handled by the doctor on call who was informed by the midwife observing the pregnant woman’s progress that “the delivery was about to occur” or that there was an abnormality. |
| | S:Software | The midwife prepared a partogram (birth progress chart) and a progress chart. |
| | H:Hardware | The recording during the CTG was not good in some places and was broken. Some parts were illegible. |
| | E:Environment | The midwife and several other staff members worked without a physician. There was no record of any consultation with other staff regarding deciphering the CTG or the need to reattach it. |

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| | L:Liveware [individual] | The midwife was not aware that the fetal heart rate on the CTG from 1:50 a.m. was abnormal and did not report it to the physician until delivery was imminent. The CTG recording was interrupted, but the delivery monitor was not reattached. |
| | L:Liveware [team] | The obstetrician on duty and on call at home was informed by the midwife that the mother was about to deliver. At 3:15 a.m., the obstetrician arrived to the delivery room and the mother was treated. |

3. Case 3 (2021 District Court Decision)

1) Case Outline

This case is of a primiparous mother suffering from paroxysmal nocturnal hemoglobinuria.

The mother was treated with eculizumab for 3 weeks postpartum at a hematology clinic.

Eculizumab is a drug with a package insert that states that it can induce meningococcal infection as a side effect.

4:55 p.m.: The mother called the hospital and told them that she had sudden chills and a fever of 39.5°C; by the time she returned home, her breast tension was strong and she had induration. She breastfed quickly after returning home and the induration disappeared. She now had no breast pain or heat and no cold symptoms. Midwife A, who responded to the call, felt that she could not decide on her own, so she consulted with her senior midwife, Midwife B, who instructed her to contact an obstetrician.

While Midwife A was reporting to the obstetrician, Midwife B began to respond to the mother's call. Midwife A saw this and interrupted her report to the obstetrician, telling him that she had already taken care of the mother.

Midwife B instructed the mother to feed the baby well because it was thought to be mastitis and to call if the fever had not broken by tomorrow morning and breast problems were still appearing.

9:18 p.m.: The mother's family called the hospital and informed them that the fever had slightly decreased, but she still had chills and significant sweating and that she was dehydrated because she could not get up and could not drink water; her hands were numb and she could not breastfeed because she was in pain.

The obstetrician ordered an emergency room visit.

9:55 p.m.: The mother went to the emergency room and was provided the necessary treatment. However, the treatment was ineffective, and she died of shock the next day.

2) Issue

Did midwife B breach her duty to instruct the mother to seek medical attention?

3) The Court’s Decision on the Issue

Midwife B had a duty of care to inform the doctor of the mother’s symptoms and to act based on the doctor’s instructions. However, midwife B judged on her own that there was a high possibility of mastitis and instructed the mother to wait until the next day to see how she was doing, without seeking the doctor’s instructions. This act constituted a negligent breach of duty of care because it deviated from the scope of work (health guidance) that the midwife should have performed.

| Case 3 | P-mSHELL | Factors |
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| <p>4:55 p.m.: The mother called the hospital. Midwife A, who responded to the call, felt that she could not decide on her own, so she consulted with her senior midwife, Midwife B, who instructed her to contact an obstetrician. While Midwife A was reporting to the obstetrician, Midwife B began to respond to the mother’s call. Midwife A saw this and interrupted her report to the obstetrician, telling him that she had already taken care of the mother.</p> | P:Patient | <p>The mother suffers from paroxysmal nocturnal hemoglobinuria. She was administered eculizumab (which can induce meningococcal infection). When she called the hospital, she told them that she had received eculizumab, but did not tell them about the contents of the “insert” regarding side effects.</p> |
| | m:Management | <p>When the midwife received the call from the patient, she consulted with the other midwives, who then consulted with the physician to discuss the patient’s visit to the emergency room.</p> |
| | S:Software | <p>The patients were instructed to have a “patient card” for adverse reactions to eculizumab and to present it whenever they had symptoms such as fever.</p> |
| | H:Hardware | |
| | E:Environment | <p>As a primiparous mother with complications, hematology and obstetrics were working together for treatment.</p> |
| | L:Liveware [individual] | <p>Midwife A explained to the doctor the name of the patient’s disease, the number of days postpartum, and her name, and that she had been given eculizumab intravenously during the day, that she had</p> |

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| | | <p>chills and fever after returning home, and that her breasts were not tender.</p> <p>While Midwife A was reporting to the obstetrician, Midwife B began to respond to the mother’s call.</p> <p>Midwife A saw this and interrupted her report to the obstetrician, telling him that she had already taken care of the mother. Midwife B instructed the mother to feed the baby well because it was thought to be mastitis and to call if the fever had not broken by the next morning and breast problems were still appearing.</p> |
| | <p>L:Liveware [team]</p> | <p>The obstetrician failed to obtain information on the details of the mother’s symptoms (e.g., the course and extent of chills and fever, the absence of cold symptoms, etc.) because Midwife A interrupted the call. As a result, no further action was taken.</p> |

Conclusion and Discussion

In all three cases, “a delay in reporting to the doctor due to a midwife’s error in diagnosis” was considered a factor, but the process leading up to this point was different. It appears that there was a safety issue here.

Case 1: An incomplete report from the midwife to the physician
 Problem: The midwife omitted critical information in her report to the physician

The case analysis revealed that the midwife lacked the ability to identify important information and communicate it appropriately. Midwives may lack education regarding the importance of symptoms and the need to report them. Continuing education has been shown in many studies to be effective in improving these skills (Schmiedhofer, 2020).

From an organizational perspective, clinics that do not have physicians on staff would benefit from setting up guideline-based protocols within the facility to reduce errors in individual decisions. It is also important to take advantage of the latest communication technology, such as electronic medical record systems, to automate the reporting process and reduce the risk of omitting important information (Eden et al., 2008). It is also useful to establish regular conferences and meetings within the medical institution to promote communication among multiple professions. This can raise awareness of the importance of information sharing between midwives and physicians (Schmiedhofer et al., 2021).

Case 2: improper fitting of CTG

Problem: Wrong reading due to incorrect CTG placement

- Proper mounting and deciphering of CTGs are essential for accurate diagnosis.
- This case suggests technical expertise and hardware issues.

Deficiencies in the CTG placement process can lead to erroneous data and decisions. From an educational perspective, it is important that specialized training programs on CTG placement and interpretation be developed and provided to healthcare professionals regularly. This will improve skills in the accurate use and interpretation of CTG (Pehrson et al., 2011; Eggermont, 2015).

In addition, real-time monitoring data can be evaluated by multiple healthcare professionals to reduce the risk of misinterpretation (Charles, 2010).

Case 3: Lack of communication between midwives and obstetricians

Problem: The midwife's report to the obstetrician was interrupted and important information was not shared

This case highlights the lack of communication within the medical team. A breakdown in communication can directly impact patient safety. Effective communication within the healthcare team is critical for improving patient outcomes. This can prevent errors and oversights in judgment. Regular team building and communication skills training are common strategies for preventing these problems. Several studies have confirmed their efficacy (Høgh et al., 2021).

The important lessons from these cases include the need for continuing education and training, the importance of communication in the medical setting, and the importance of establishing appropriate hardware and protocols. These elements are critical for improving patient safety and quality of care. This study reveals the importance of identifying problems in medical practice and providing specific remedies, as evidenced by recent medical malpractice lawsuits in childbirth.

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