

Case Report

Educational View in Legal and Ethical Responsibility of Physicians in Erb-Duchenne Palsy: A Case Report



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ABSTRACT

Background: Erb-Duchenne palsy is one of the common paralysis disorders in childbirth. Shoulder dystocia, obesity, anatomic pelvic disorders, and physicians' incompetency are involved in Erb's palsy. Performing standard maneuvers while delivering the baby can minimize such complications. This study aimed to answer the legal and ethical questions regarding the civil responsibility of physicians regarding Erb's palsy and to express educational points of view.

Case Presentation: This study reports a 20-year-old female who attended legal consultation due to right arm plegia that happened after her childbirth. In such cases, medical professionals' indemnity introduces them as accountable ones, and if their actions are not consistent with the guidelines and up-to-date medical textbooks, they are responsible for the sustained injury and are to be penalized and compensated.

Conclusion: Obstetricians and other medical professionals should undertake suitable education through a student's curriculum and continuous professional development program, which complies with their legal and civil responsibilities.

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1. Introduction

Obstetric palsy (OP) occurs in newborns during labor, which can be partial or complete paralysis [1]. The incident rate is 3 out of 1000 [2]. OP is due to the damage induced to the brachial plexus in labor, which rarely happens in cesarean section [3]. This condition is associated with factors such as shoulder dystocia (SD), the mother's narrow pelvis, fetus weight over 3.5 kg, pelvic presentation of the baby, and obstetrician mishandling [4]. OP's clinical presentation depends on the extent of injury induced to the brachial plexus. Erb's palsy is the most common OP, which is due to C5 and C6 neural roots' injury. Newborns with Erb's palsy experience impairment in the abduction of the upper limb, while the elbow can flex and the forearm is in a supination position [5].

The incidence in male babies is higher than in females, which is associated with a higher weight in boys compared to girls. Besides, the injury to the right arm is more prevalent than to the left [6]. According to long-term clinical studies, 20%-30% of newborns with labor-associated neural damage suffer from permanent disabilities [5]. Early diagnosis significantly increases the chance of recovery in 70% of the cases; however, this declines considerably after four months [6].

In the current study, we report an Erb's palsy case and then answer the following legal questions:

- Is Erb's palsy considered malpractice?
- Does the clinician have legal responsibility in such cases, or is it only an ethical issue?
- Who is responsible for the injury sustained? Are physicians or other medical professionals involved?
- What if the labor occurs out of the clinical environment by an unprofessional person?
- Can the patient claim his/her rights after a long time?

2. Case Presentation

The client is a 20-year-old female who has attended the solicitor's office. Consistent with her clinical evidence, showing her right brachial plexus injury during labor, she reports that her right hand has been injured during childbirth. She cannot do daily tasks with the affected hand,

and she only uses his healthy hand. Her physical examination revealed a massive motor dysfunction without any sensory dysfunction. The physical functioning score of his right hand is +2/5. She weighed 3600 g at birth. She does not have any other congenital anomalies. His mother has a history of diabetes. Following two surgeries, no improvement has been evident in her arm's function, and her arm still has no function. The client has expressed her will to sue her doctor. She has also consented to participate in the study, but she does not wish to share her identity or any photos of her limb.

3. Discussion

In this study, we first examine the legal issues of this report from various aspects and the accountability of the clinicians against newborns with Erb's palsy; then, we address the questions highlighted earlier in this study.

As mentioned above, one of the contributing factors in Erb's palsy is SD [4]. This condition is defined as the position where the frontal shoulder is located behind the mother's symphysis pubis, and the posterior shoulder is stuck behind the mother's sacral promontory area (Figure 1). Having the two shoulders trapped results in labor not progressing normally. Numerous maneuvers and methods are suggested to tackle this situation. McRoberts maneuver is one of the well-known approaches suggested by the American College of Obstetricians and Gynecologists (ACOG), in which pressure on the supra-pubic area should be applied (Figure 2). According to these guidelines, McRoberts maneuver is both simple and effective [7]. Based on a study, McRoberts maneuver can alone resolve 40% of the SD cases [8]. This procedure is suggested to be done by two professionals. Complications, such as sacral and iliac dislocations, are uncommon in this maneuver [9].

Legally, not attempting to do McRoberts maneuver in these cases is clinical negligence. Also, inappropriate performance in this procedure is considered malpractice. On the other hand, performing this procedure in solitary is also malpractice.

Another risk factor in OP in labor is fetal weight over 3.5 kg [10]. Since fetal weight can be assessed by ultrasound diagnostic tools [11], obstetricians should consider diagnostic results. In cases where clinicians do not pay enough attention to such results, medical malpractice is evident. Therefore, if the mentioned risk factors exist, the mother should be notified, and informed consent should be taken for natural vaginal delivery. Consequently, after the informed consent, the clinician is not responsible for the injuries caused by the labor.

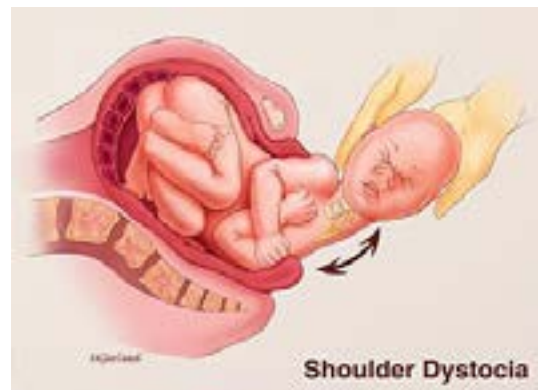


Figure 1. Schematic representation of the labor with shoulder dystocia (SD)

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The next risk factor in Erb's palsy with SD is the obstetrician's incompetency [4]. Proving the incompetency is based on the medical records and the evidence noted by experts. Inadequate experience does not lawfully prove medical negligence unless there has been a clinical decision or action which contradicts the current acceptable guidelines and makes the clinician responsible for the injury.

The cephalic presentation of the fetus is the other contributing factor. This presentation is recognizable by ultrasound diagnostics before birth (35th and 36th weeks of pregnancy) [12]. There are two aspects to note here: Firstly, the labor commences in abnormal and unplanned weeks of pregnancy; and secondly, labor occurs as planned. If the labor is unexpected, the physician is not responsible; if the labor has happened as expected and the ultrasound is not done according to negligence, then the clinician is considered responsible.

The answers to the questions mentioned earlier in this study are presented here.

1st question

Guilt (fault) is defined as offense and omission. In other words, it is known as a lack of following the dos and don'ts which are defined in the law. In this study, the lack of following the guidelines by healthcare professionals is a means of omission. Hence, proving an omission or offense proves malpractice.

2nd question

Ethical responsibility merges once an omission or offense lacks a legal prosecution. Other than ethical responsibility, every offense or omission which is a rule in the law has a legal aspect. Since healthcare professionals' responsibilities have been discussed in various civil laws and penal codes, their actions and responsibilities are prosecuted if offense and omission occur.



Figure 2. Schematic representation of McRoberts maneuver in labor

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3rd question

A causal relationship between the harmful action and the harm caused is one of the fundamental topics in civil law; therefore, everyone is accountable for one's actions. That is, the clinician is responsible for his/her malpractice and has to compensate, as are midwives and nurses. Of course, if the nurses and midwives have followed the clinician's or team leader's orders, the leading person is responsible for the malpractice indemnity; unless other team members have attempted malpractice.

4th question

In some cases, while the passing of time in trading and business-related laws can affect the victim's rights, civil law, and indemnity matters, it does not affect the patient's rights, and the person can claim and litigate against the clinician.

4. Conclusion

Obstetricians and other medical professionals should undertake suitable education which complies with their legal and civil responsibilities.

Ethical Considerations

Compliance with ethical guidelines

In order to comply with ethical issues and protect the patient's privacy, a written consent was obtained from the patient to publish this article and according to the patient's request, the image and profile of the patient was withheld.

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Authors' contributions

All authors equally contributed to preparing this article.

Conflict of interest

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References

- [1] Figueiredo EA, Freitas FSC, Parente Neto JI, Abdouni YA, Costa ACD. Evaluation of long-term results of oberlin surgery in obstetric brachial paralysis. *Revista Brasileira de Ortopedia*. 2022; 57(1):103-7. [DOI:10.1055/s-0041-1731416] [PMID] [PMCID]
- [2] Kamath JB, Harshvardhan, Naik DM, Bansal A. Current concepts in managing fractures of metacarpal and phalanges. *Indian Journal of Plastic Surgery*. 2011; 44(2):203-211. [PMID] [PMCID] [DOI:10.4103/0970-0358.85341]
- [3] Galbiatti JA, Cardoso FL, Galbiatti MGP. Obstetric Paralysis: Who is to blame? A systematic literature review. *Revista Brasileira de Ortopedia*. 2020; 55(2):139-46. [DOI:10.1055/s-0039-1698800] [PMID] [PMCID]
- [4] Thatte MR, Mehta R. Obstetric brachial plexus injury. *Indian Journal of Plastic Surgery*. 2011; 44(3):380-9. [DOI:10.4103/0970-0358.90805] [PMID] [PMCID]
- [5] Figueiredo Rde M, Grechi G, Gepp Rde A. Oberlin's procedure in children with obstetric brachial plexus palsy. *Child's Nervous System*. 2016; 32(6):1085-91. [DOI:10.1007/s00381-015-3007-9] [PMID]
- [6] Bekou EA, Iakovidis P, Chasapis G, Kottaras I, Kottaras A, Lytras D. Comparison of the efficacy of electrotherapy and neuromuscular retraining techniques in restoring the function of children with obstetric palsy. *International Journal of Advanced Research in Medicine*. 2021; 3(1):419-22. [DOI:10.22271/27069567.2021.v3.i1g.175]
- [7] Bothou A, Apostolidi DM, Tsikouras P, Iatrakis G, Sarella A, Iatrakis D, et al. Overview of techniques to manage shoulder dystocia during vaginal birth. *European Journal of Midwifery*. 2021; 5:48. [DOI:10.18332/ejm/142097] [PMID] [PMCID]
- [8] Ragusa A, Svelato A, D'Avino S, Crescini C. Shoulder dystocia: Overview and management strategies. In: Malvasi A, editor. *Intrapartum ultrasonography for labor management*. Cham: Springer; 2021. [DOI:10.1007/978-3-030-57595-3_40]
- [9] Heath T, Gherman RB. Symphyseal separation, sacroiliac joint dislocation and transient lateral femoral cutaneous neuropathy associated with McRoberts' maneuver. A case report. *The Journal of Reproductive Medicine*. 1999; 44(10):902-4. [PMID]
- [10] Narendran LM, Mendez-Figueroa H, Chauhan SP, Folh KL, Grobman WA, Chang K, et al. Predictors of neonatal brachial plexus palsy subsequent to resolution of shoulder dystocia. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2021; 1-7. [PMID] [DOI:10.1080/14767058.2021.1882982]
- [11] Sereke SG, Omara RO, Bongomin F, Nakubulwa S, Kisembo HN. Prospective verification of sonographic fetal weight estimators among term parturients in Uganda. *BMC Pregnancy Childbirth*. 2021; 21(1):175. [DOI:10.1186/s12884-021-03645-4] [PMID] [PMCID]
- [12] Ficara A, Syngelaki A, Hammami A, Akolekar R, Nicolaides KH. Value of routine ultrasound examination at 35-37 weeks' gestation in diagnosis of fetal abnormalities. *Ultrasound in Obstetrics & Gynecology*. 2020; 55(1):75-80. [DOI:10.1002/uog.20857] [PMID]