The Periviable Cesarean Section: Can a Case Be Made for Expanding Beneficence in Decision-Making?

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Periviable preterm birth is a medically complex and emotionally challenging obstetric scenario characterized by large variations in both clinical practice and patient preferences. Some guidance has been provided for obstetric care providers from organizations such as the American College of Obstetricians and Gynecologists (ACOG) and the Society of Maternal Fetal Medicine (SMFM) (Raju et al. 2014). However, clinical application of these recommendations can be difficult. In order to support both patient autonomy and follow best medical practices, potential obstetric interventions require significant shared decision-making between physicians and patients.

In 2015, we published an article in *Ethics in Medicine* justifying the translation of informed assent, non-dissent, and unilateral physician decision-making to cases of periviable birth (Lynch and Burcher 2016). We agreed with Frank Chervenak and Laurence McCullough who argue that aggressive obstetric management is contraindicated in periviable pregnancies where there is only the potential for iatrogenic harm, without any benefit (Chervenak and McCullough 2013a, 2013b). Using the scenario of a cesarean section for a 22-week fetus, they argue that maternal harm from the cesarean section at this gestation is not counterbalanced by improved fetal outcome. In a straightforward sense, to perform a cesarean section would violate the principle of nonmaleficence because the possibility of patient harm is not counterbalanced by some benefit to her or her fetus. Accordingly, cesarean sections before 23 weeks are generally understood to be medically inappropriate. Furthermore, because the request for cesarean section is most often based on unfounded hopes for

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improved fetal outcome, there is general consensus that a cesarean section should not be performed, even upon maternal request (Chervenak et al. 2007). But the question we wish to consider is whether maternal benefits could justify a periviable cesarean section in a setting where there is no conceivable fetal benefit. That is, while we acknowledge that, in general, cesarean sections before viability are likely to violate the principle of nonmaleficence, we would like to consider whether there could be exceptions to this grounded in an expansive notion of maternal beneficence that goes beyond the medical indications and risks of a procedure. The discussion will begin with developing the argument for expanding the notion of maternal beneficence using a recent case we encountered. The second section applies this concept to periviable circumstances and addresses the strengths and shortcomings of this argument by analogy.

Elective Cesarean Section at Term for Maternal Benefit

A recent case we encountered of an elective cesarean section at term first raised this question for us. We have changed some details to de-identify the case. A 40-year-old woman with large uterine fibroids requested an elective cesarean section at 39 weeks for a fetus with a known fatal anomaly. The anomaly would be rapidly fatal after birth, and up to half of fetuses with this anomaly do not survive labor. In general, a cesarean section is not recommended for this fetal condition as there is no conceivable fetal benefit to cesarean delivery for these fetuses. This patient had been counseled extensively about her risks of hemorrhage, hysterectomy, and death, as she did not accept transfusion of any blood products for religious reasons. Her risks of a cesarean section were higher because she had multiple fibroids, which increase blood loss, and she was refusing all blood products. It was clear with extensive counseling that the couple was under no illusion that the baby could possibly survive, and they undoubtably recognized the lack of long-term benefit to the fetus by performing a cesarean section.

The patient had articulated that her goal for the pregnancy was to hold a living baby. Even though she understood the prognosis, having the baby die during labor, before she could hold him, was unacceptable to her. At 40 years old, she recognized that she was unlikely to achieve a pregnancy again, and she stated clearly that she was willing to risk her life in order to hold her son before he died. Her husband supported her decision. They had no lack of clarity about any of the medical facts regarding her risks or the prognosis of her baby. After counseling by both maternal-fetal medicine specialists and an ethics consultation, the care team agreed to perform an elective cesarean section at their request.

We struggled with how to frame our understanding of this case, and settled on an expansive sense of beneficence that moves beyond a strict medical model of physical harm and benefit. While this benefit could be couched in psychological language, we prefer to state it more simply: The patient was expressing a strong desire that was realistic and achievable through an intervention we could provide, albeit at significant risk to her. Although we recognize that this could also be framed in terms

of patient autonomy, we will frame it as accepting the patient's appraisal of the good and incorporating it into the weighing of benefits and harms associated with the procedure. Starting from patient autonomy only leads back to beneficence because the right to request a procedure is not unlimited. In order for a patient to choose a procedure, and for a physician to accept this choice, the risks and benefits must be favorably balanced. But in the case discussed here, the balance is only favorable if you expand beneficence to include non-medical goals.

The patient underwent a cesarean section without any complications, and was able to hold her baby for several days before he died at home with them. In this case, we believe, performing the cesarean section was ethically permissible, even though it violates a commonly accepted medical guideline in that she was placed at significant medical risk without any countervailing medical benefit. She was able to fully understand and accept the risks associated with this decision, and therefore was making an autonomous and informed choice to have a cesarean section. While these circumstances are not perhaps unique, it is in our experience relatively uncommon for the care team to acknowledge a larger sense of beneficence beyond a strict medical framework. Had this same patient stated that she desired a cesarean section for an unrealistic sense of fetal benefit, we would argue that this is a distinctly different scenario and a cesarean section would not be ethically permissible.

Expanded Maternal Beneficence in Periviability

In order to illustrate what we mean by expanded maternal beneficence, consider a 40-year-old woman at 22 + 0 weeks gestation with a pregnancy conceived through in vitro fertilization with her last embryo. She has had 4 prior pregnancy losses, including an intrapartum demise at 19 weeks. She presents with preterm premature rupture of membranes and fetal malpresentation. During discussion, the patient states that this is her last attempt to have a child and her one desire is to hold the baby alive. There is another large gush of fluid and a cord prolapse is diagnosed. Is it ethically permissible to perform a cesarean section even though there is no fetal benefit and the fetus will likely die intrapartum? If you do a classical cesarean section, there will be an increased risk of blood loss, as well as an increased risk for transfusion, infection, adhesion formation, and hysterectomy. And this will still not assure fetal survival. Still, perhaps there is a justification in this scenario for a cesarean section if, despite fetal physiologic futility, the procedure would promote both maternal autonomy and beneficence.

This new case can be understood as having ethical relevance by analogy to the previous scenario. While periviable decision-making and decision-making about the term fetus with fatal anomalies are different in some respects, both involve a fetus with little or no hope of survival, which has obvious impact on medical and patient decision-making regarding birthing options. We argue that there are certain situations when performing a cesarean section at 22 weeks gestation is ethically permissible, despite current guidelines, if an expanded sense of beneficence is

accepted because the balance of beneficence and nonmaleficence becomes favorable.

Most arguments for refusal of cesarean section for a fetus at 22 weeks gestation or less are justified by the concept fetal physiologic futility (Chervenak et al. 2007). In other words, the cesarean section can have no reasonable expectation to result in the hoped for outcome of a live infant. In this line of reasoning, the risk of harm to the mother is not counterbalanced by any benefit. Justifying refusal of cesarean section in these terms reduces the desired outcome to only fetal survival. However, the mother in our case above is not expecting her baby to survive; her desired outcome is to hold her baby before his expected death. By expanding the desired outcome to include maternal benefits chosen by the woman and grounded in her goals and values, the principles of maternal beneficence and autonomy are being upheld without violating the principle of nonmaleficence.

The idea that non-medical maternal benefit may counterbalance the potential risk of physical maternal harm is not widely recognized by physicians, but we are not the first to suggest this possibility. In fact, a similar scenario was presented in a Mayor and White 2015 *Hastings Center Report* case report by Mejebi Mayor and Amini White. The case involved a request for an elective cesarean section for a fetus with confirmed Trisomy 13. The authors asserted that maternal beneficence and autonomy were being supported by the psychological benefit the cesarean section was providing the patient. By performing a cesarean section the mother was able to participate in spiritual and emotional practices that were important to her, and this sufficiently counterbalanced the potential iatrogenic harm of a term planned cesarean section. Preterm birth is associated with a high rate of maternal depression, post-traumatic stress disorder, acute stress disorders and anxiety. Interventions that potentially mitigate the psychological impact of preterm delivery may reduce maternal morbidity (Greene et al. 2015; Jubinville et al. 2012; Misund et al. 2013, and Vigod et al. 2010). This, in turn, can be seen as promoting beneficence and nonmaleficence.

If the patient's life values and goals are supported by realistic emotional and spiritual objectives that can only be achieved by a cesarean section and are not grounded in false hope, and if the risks of the procedure are fully understood and accepted, then the patient is truly making an autonomous decision that can be supported by physicians within this expanded conceptualization of beneficence. The decision to support a request for elective cesarean section includes some judgment regarding whether the request is grounded in the patient's values, whether the expected benefit is in fact achievable, and if achievable, whether it is only achievable by this more invasive method of giving birth (Chervenak et al. 2007).

While the reasoning above provides support for expanding the notion of beneficence as a justification for periviable cesarean section birth in some cases, it does not provide a rationale for cesarean sections for fetal indication below viability. Current guidelines do not recommend a cesarean section for fetal indications at less than 23 weeks gestation. Furthermore, outcome data indicates those infants born at less than 23 weeks gestation have a 5–6% survival with 98–100% having significant morbidities. (Ecker et al. 2016). At this time, a cesarean section performed at 22 weeks gestation in the hope of improved fetal outcome and survival is medically

inappropriate. A physician could not claim that the cesarean section would promote the patient's life goals because the benefit sought by the patient, improved fetal outcome, is grounded in an unrealistic hope. Further, a patient's decision cannot be considered autonomous because the patient is not demonstrating understanding of the medical facts. Therefore, this distinctly different clinical scenario should not result in cesarean section, even on maternal request.

Limits of Expanded Beneficence in Periviability

However, even if the patient has a reasonable justification for a cesarean section, such as our example of a patient with her desire to hold a live infant, there are other problems with periviable decision-making that are not present in our term elective cesarean section example. Other authors have analyzed term cesarean section and determined that the low risk of this particular procedure can support elective cesarean section without fetal benefit (Lannon et al. 2015). But periviable cesarean section is different. At this preterm gestation, a classical cesarean section is frequently required. This particular procedure has increased risks of uterine rupture, abnormal placentation, blood loss, longer operative times and longer hospital stays as compared to low transverse uterine incisions (Gyamfi-Bannerman et al. 2012; Lao et al. 1993, and Bakhshi et al. 2010). In fact, even low transverse uterine incisions (the procedure for a term cesarean section) at preterm gestation have increased risks for future uterine rupture as compared to term cesarean sections (Lannon et al. 2015). The risks of a preterm cesarean section are much higher than that of a term cesarean section, and therefore require a more significant and lengthy discussion with the patient to provide adequate informed consent, and perhaps a greater maternal benefit is needed to counterbalance the increased risk.

Another relevant difference between the scenario of the term fetus with fatal anomalies and the periviable preterm delivery is the amount of time that can be afforded to counseling. The patient with the term fetus had months to meet with counselors, physicians, and ethics consultants. Most importantly, she had time to consider all of her options. This allowed for a unique dialogue to occur which permitted shared decision-making and informed consent. Cases of periviable preterm birth do not follow this same timeline. Not only does the length of the gestation (22 weeks vs. 39 weeks) impact this, but also the urgency that often accompanies these clinical situations. For instance, our 22-week preterm example involves a cord prolapse, which is typically an obstetric emergency. In these cases, decisions are made in seconds rather than weeks. In 2013 Kirsten Salmeen and Cynthia Brincat published a retrospective study of unplanned cesarean sections from 32 to 42 weeks and determined that the interval from informed consent to cesarean section was typically only 50 minutes (Salmeen and Brincat 2013). Other studies have demonstrated that 25% of patients who undergo emergency surgery report insufficient time to consider the consent form (Akkad 2006) and cannot recall the risks of the procedure (Odumosu et al. 2012). Preventive ethics is a proposed method of improving this

suboptimal situation: Discussions of complications related to cesarean section could be discussed throughout a patient's prenatal care (Chervenak and McCullough 2013a). However, this seems unrealistic for periviable birth. For some academic institutions the cesarean section rate approaches 30% (Nippita et al. 2015) whereas periviable preterm birth has an estimated incidence of 0.03–1.9% (Chauhan and Cande 2013). Providing counseling regarding periviable decision-making to the general population of obstetric patients is not justified given the low incidence of this complication, and the likely anxiety that such counseling would produce. So while preventive ethics is appropriate for providing more adequate informed consent for cesarean section in general, it is not extendable to the complex informed decision-making required in periviable settings.

Furthermore, these patients are often transported to tertiary-care centers miles to hours away from their homes and are meeting care teams that they have never encountered before. In cases of a periviable preterm cesarean section as compared to a term cesarean section, the short initial interaction between a recently transported patient and the accepting physician may not allow for adequate informed consent for an elective cesarean section, particularly if the discussion includes factors relevant to our expanded notion of beneficence: The patient needs to weigh the considerable risks against her own sense of benefit, and the physician needs to assess whether the patient's expected benefits are founded in the medical facts or not. Non-indicated elective surgeries require careful delineation of risks in order to adequately provide informed consent (Burcher et al. 2013). So, for our example of a 22-week fetus with cord prolapse, it is impossible to imagine that a full discussion of the risks of an elective classical cesarean section could be performed in that limited timeline. The situation does not provide the opportunity to meet the minimum necessary threshold for informed consent to ethically justify a periviable elective cesarean section. In contrast to the majority of term laboring cesarean sections, which are medically indicated, a cesarean section at 22 weeks is elective, in the sense that the indication is maternal request, and currently not recognized by professional organizations. Therefore, the decision to proceed with this would require time, time that may be only afforded in rare scenarios of periviable birth.

Periviability will continue to be a challenging obstetric scenario. With advancing medical technology pushing the threshold of fetal survival to earlier and earlier gestations, viability continues to be a moving target. As the medical facts shift, goals that were previously unrealistic may become more realistic. But this will not change the principles required for good decision-making and the need to communicate complex information in often in stressful circumstances with little time. In the setting of periviability, when maternal goals are realistic, and adequate informed consent of the risks of the procedure has been provided, a cesarean section at 22 weeks gestation may be ethically permissible. Expanding the notion of beneficence to include psychological or spiritual benefit, without opening it up to unrealistic appraisals of the medical situation, admits an exception to the guidelines on periviable decision-making.

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