Posttonsillectomy Hemorrhage in a Pediatric Jehovah’s Witness and the Decision to Transfuse

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Case Presentation
A 7-year-old male presented for adenotonsillectomy for chronic tonsillitis. The family was Spanish speaking and Jehovah’s Witness, and a specific request to avoid blood transfusions was made. Adenotonsillectomy was performed as an outpatient without event. On postoperative day (POD) 1, the patient presented to the emergency department (ED) with hematemesis. The patient was taken to the operating room (OR) for control of pharyngeal bleeding. Intraoperative blood loss was 400 mL, and he was transferred to the intensive care unit (ICU) intubated. Postoperative hemoglobin was 5.8 g/dL, with normal coagulation profiles. Hematology was consulted, and iron and tranexamic acid were started. Discussion was made with the family and the Jehovah’s Witness liaison committee regarding recommendation for transfusion, which the family refused. On POD 2, the patient required an additional OR trip for hemorrhage control with a postoperative hemoglobin of 5.2 g/dL. The patient had another bleeding event on POD 5 and again went to the OR. Hemoglobin was 5.3 g/dL, and after difficulty controlling the hemorrhage, the anesthesiologist and the otolaryngologist jointly decided to administer 3 units of packed red blood cells to the child. The hemorrhage was controlled, and postoperatively, the child had a hemoglobin of 15.9 g/dL with no additional bleeding. The Cincinnati Children’s Hospital Medical Center IRB exempted this case report from review.

Point
Transfusing the patient against the wishes of the family fulfilled the ethical principle of beneficence and was correctly prioritized over patient autonomy in this case.

Pediatric patients with parents who subscribe to the Jehovah’s Witness (JW) faith present unique ethical and legal challenges to surgeons performing surgery with a risk of hemorrhage. This case makes clear that the risk of hemorrhage must be discussed with patients with JW parents who are scheduled to undergo even routine surgery. In addition, techniques to limit blood loss and treat hemorrhage apart from transfusion should be used for JW patients when possible.1 However, there are instances when, despite maximal effort to provide alternative treatments, transfusion is the only viable option for the medical team, such as when hemoglobin drops under 7 g/dL. In this case, transfusion was deferred due to family preference despite a hemoglobin of 5.2 g/dL. For this case, we argue that danger to the patient’s life necessitated transfusion in accordance with previous case law and the ethical principle of beneficence, indicating a limit to shared decision making centered on patient autonomy, and that transfusion should have occurred at a hemoglobin trigger of 7.0 g/dL.

Legally, the treatment of adult JW patients is well established. If an adult JW does not wish to undergo a blood transfusion, he or she has the right to decline this treatment due to religious belief according to the principle of patient autonomy.2,3 However, this is not the case for pediatric patients who have not yet reached agency, where the picture is murkier. Current US legal precedent is from a 1944 case indicating that JW parents are not able to “make martyrs of their children before they have reached the age of full and legal discretion.”4-7 While current case law is to supersede
parental desires against transfusion in the setting of imminent danger to a child, the legal definition of imminent danger is unclear and based on physician judgment, and this is a source of potential difficulty for the practicing otolaryngologist. An additional challenge is the inability to obtain truly informed consent from minors and to determine at which age children may decide for themselves they share their parent’s faith. In this case, there was imminent danger to the patient according to multiple physicians, and the child was young enough that it was clear he did not understand the JW faith to a deep enough level as to make an independent decision.

Ethically, the primary principles in tension in this case are beneficence and autonomy. Beneficence is the ability of the physicians to do good for their patients, and autonomy is the ability of patients to choose medical treatments in accordance with their own dignity as human beings. In adults, the relative value of various ethical principles has varied over time, but currently patient autonomy is of high value. However, pediatrics brings an additional layer of complexity, and many medical ethicists believe beneficence should take a primary role in pediatric treatment due to the lack of full agency and inability to give truly informed consent. In this case, the parents’ authority over their child’s well-being does not allow them to impose fatal harm on their child due to their religious beliefs. Rather, physicians have a primary duty to the patient’s interests, including to “do no harm,” which is itself a basic formulation of the ethical principle of nonmaleficence. In this case, to withhold or delay transfusion was an action with the potential to do harm and thus was not ethically permissible according to both the principles of beneficence and nonmaleficence.

Religiously, giving JW children blood distresses parents and may also be concerning to the children when they are old enough to understand that blood has come into their body, as receiving blood violates religious beliefs based on interpretation of scripture (Gen. 9:3-5; Lev. 17:13-14; Acts 15:19-20). Importantly, Jehovah’s Witnesses do understand that best medical practice legally requires blood transfusion for minors. Having a respectful conversation includes an understanding that the parent is not being negligent by honoring sacred values above physical realities but also entails informing parents that a transfusion will take place if certain thresholds are met according to the physician’s duty to treat the patient with the standard of care above all else.

Good ethics must also rest on good facts and not exclusively on theory or legal precedent. In this case, as a result of refusing transfusion when recommended, the treating physicians made the decision to keep the patient in the ICU intubated for a prolonged time period instead of transfusing the patient. This theoretically increased the risk of infectious complications due to prolonged ventilation and increased expense and emotional distress to the family, not to mention the inability to use ICU-level care for other patients. An added dimension was the presence of Jehovah’s Witness religious advisers serving as intermediaries between the family and the medical team, which influenced the decision-making process, especially given the family’s lack of fluency in English.

In summary, we believe transfusion decreased risk to the patient and feel the physicians in this case made the correct decision to transfuse the patient against the parents’ wishes. We suggest transfusion earlier in the process may have saved the family the distress of repeated bleeding episodes and could have decreased the length of hospital stay for the patient. For these reasons, we believe the physicians in this case made the correct decision to transfuse the patient against the family’s will in order to serve their duty to the patient’s well-being first and foremost.

Counterpoint

_Giving a blood transfusion to the child against the family’s preference infringed on patient autonomy and caused more harm than good to the patient and his family and should have been delayed to a lower trigger._

This case is about the degree to which the principles of autonomy should be the primary ethical principle driving medical decision making. The decision making in this case must be based on 3 spheres, which we will address in turn. First, what are the medical facts of the case? Second, what is the legal background on this topic? Third, what is the strongest ethical argument in this child’s situation according to the ethical principles of autonomy and beneficence? We will address each in turn and argue that giving a transfusion to this child caused greater harm than good.

First, the medical facts are of paramount importance. Anemia secondary to acute or chronic blood loss can lead to myocardial ischemia after hemoglobin drops below a hemoglobin of 5 g/dL, but the exact point at which this occurs has been subject to controversy. A recent _New England Journal of Medicine_ article argues that transfusion of pediatric patients at a threshold of 7 g/dL as opposed to 9.5 g/dL does not lead to inferior outcomes, indicating that relative anemia may be superior to transfusion. Other work specifically centering on Jehovah’s Witnesses indicates that survival is possible with hemoglobin levels as low as 1.4 g/dL, with acceptable results with a hemoglobin >6 g/dL. Finally, there is a risk to transfusion; possible complications include infectious transmission and immune-related reactions. In light of this, it is unclear that in this case, in which the patient never had his hemoglobin drop below 5 g/dL, that transfusion improved his clinical outcome. The decision to transfuse involves physician experience and physiologic reasoning, but there are no level 1 data to suggest his outcome would be improved with transfusion. While this is not an argument for nontransfusion in an accepting patient, lack of high-quality clinical evidence must be accounted for when treating a child with a family who wishes to avoid transfusion.

Previous case law has been interpreted to allow physicians to transfuse the children of Jehovah’s Witnesses for life-threatening anemia, allowing judges to overrule parents’ decisions on blood transfusion when a child’s life is deemed to be in immediate danger according to the doctrine of
However, when alternative treatments are possible, courts have held that religious objections hold legal sway and the court cannot order transfusion. In a case where an infant was born with a myelomeningocele, the court determined the condition could be treated with antibiotics rather than surgery, indicating that the court did not view a serious threat to life as an indication for legal intervention. Thus, there is legal precedent for allowing parents to retain decision-making ability even when “standard of care” treatments are denied. Due to a lack of clear legislation on the issue, cases are treated on an individual basis, meaning the tension between autonomy and physicians’ goal to do good by their patients persists.

In Western medical ethics, autonomy (the right to make decisions for one’s own life) has a high value. Thus, it is accepted that adult Jehovah’s Witnesses have a right to refuse blood transfusions even if it will lead to death. For Witnesses, refusing transfusion is an issue of religious freedom, a fundamental human right grounded in the principle of autonomy. Ethically, the state must prove that it understands the child’s best interest more than the child’s parents to override the parental prerogative to choose what is best for their child. Witnesses are not blind to the controversies regarding transfusion in children, arguing that “children are certainly benefited if their parents’ religion stresses the need to care for them. That is so with Jehovah’s Witnesses who in no way want to neglect their children.” In refusing blood transfusion, Witness parents “cannot be said to be truly harming or neglecting their children . . . for this reason it is probably in a child’s best interest that the family be maintained.” There are also tangible consequences to transfusing JW children—cases exist where children who have been transfused have been given up for adoption due to transfusion and the subsequent threat of excommunication from the church. While it is understandably difficult for non-Jehovah’s Witnesses to understand this reasoning, it signifies a very serious consequence to the child who receives a transfusion and cannot be discounted in the decision-making calculus of these cases.

It would be unfair to fail to mention the argument of beneficence—in this case to transfuse to save the patient’s life. The intentions of the treating physicians were noble—they sought to improve the patient’s likelihood of survival. Nonetheless, this decision had negative consequences. In court, the mother expressed that the forced transfusion was morally equivalent to rape, indicating that a significant psychological harm occurred. The family also had serious concern about the child’s spiritual health after transfusion—this must be considered a harm, especially with the very real risk that the child would be disowned after transfusion. Therefore, the goal of beneficence was not completely met, and the ethical principle of autonomy was compromised. This patient did well clinically, but the same clinical outcome was potentially possible without transfusion. Given the emotional toll on the child and his family, as well as the lack of clinical evidence for transfusion, we must conclude that transfusion at a hemoglobin of 5.2 g/dL was not ethically justified and should have been delayed until hemodynamic changes were present.

**Author Contributions**

Andrew J. Redmann, conception, interpretation of the data, drafting and revising of work, final approval, accountable for all aspects of work; Melissa Schopper, conception, interpretation of the data, drafting and revising of work, final approval, accountable for all aspects of work; Judith Ragsdale, conception, interpretation of the data, revising of work, final approval, accountable for all aspects of work; Michael J. Rutter, conception, interpretation of the data, revising of work, final approval, accountable for all aspects of work; Catherine K. Hart, conception, interpretation of the data, revising of work, final approval, accountable for all aspects of work; Charles M. Myer III, conception, revising of work, final approval, accountable for all aspects of work.

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**Competing interests:** Michael J. Rutter, Bryan Medical (patent holder for Aeris airway balloon), Tracoe (medical advisor), and Boston Medical Products (sells a stent with Dr. Rutter’s name on it [Dr. Rutter receives no royalties for this]).

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7. Jehovah’s Witnesses in the State of Washington v King County Hospital, 2778 F. Supp 488 (1967).


