



A Jehovah's Witness Patient with Polytrauma: Deontology, Law, and Faith

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Abstract

Polytrauma involving traumatic brain injury poses serious threats like hemorrhagic shock and consumption coagulopathy. Blood and blood components are a necessity for maintenance of homeostasis in these patients. Elizabeth Topley and R. Clarke, in their study, demonstrated a considerable drop in red cell volume following a major trauma, nearly 11% in the next 14 days. Use of extensive perioperative blood salvage techniques, recombinant erythropoietin, iron complex injections, and antifibrinolytic agents cannot replace the benefits of blood and blood component transfusion. The real challenge of blood transfusion arises in Jehovah's Witness (JW) patients where a licensed medical practitioner (LMP) is caught in the loop of protecting the sanctity of faith over saving a patient's life. This case report highlights the successful management of a 19-year-old JW patient without transfusion of blood or blood products despite an absolute indication for transfusion. We also discuss the legal and ethical perspectives necessary for a legal medical practitioner, when treating patients of JW faith.

Keywords

- ▶ Jehovah's witness
- ▶ polytrauma
- ▶ blood transfusion

Introduction

Founded in 1872 in the United States, Jehovah's Witnesses (JW) spread across the globe including India. Quoting references from the New World Translation of the Bible, the followers have beliefs with regard to transfusion of blood and its products, among others. From time to time, since World War I (1918), there have been ethical and legal conflicts with set conventions in the society. Some legal battles were won by the group in various countries.

In India, they number in excess of 33,000. In August 1986, in the state of Kerala JW school children refusing to sing the national anthem were expelled from school. The Supreme Court of India overruled the Kerala High Court decision to protect the practices of JW's faith in that case.

Most licensed medical practitioners (LMP) face a hurdle while taking consent for transfusion of blood and blood products when treating JW patients. "Faith-based medical neglect" is not a new concept in our multifaith society. However, JWs seek modern medical treatment with restrictions only on transfusions and transplants. We discuss a polytrauma case involving a 19-year-old in semi-coma at admission whose parents were of JW faith. We discuss the role of a parent's faith in one's right to life or limb-saving medical intervention.

Case Description

A 19-year-old man of JW faith was brought to the emergency department with an endotracheal tube in situ from a secondary

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care hospital after sustaining polytrauma following a road traffic accident for further management. On arrival, his vitals were the following: heart rate 92/min, blood pressure 90/50 mm Hg, and oxygen saturation 95%. On systemic examination, there was reduced air entry in the right lung and his Glasgow Coma Scale (GCS) score was $E_1V_1M_5$ with both pupils reacting to light. Computed tomography (CT) image of the brain demonstrated skull fracture and X-ray showed a fracture of the shaft of the left femur (→**Fig. 1A**). High-resolution CT scan of the chest showed pulmonary contusions involving the middle and lower zones of the right lung (→**Fig. 1B**). Repeat CT of the brain demonstrated left parietal extradural hematoma (EDH) near the fracture of the parietal bone (→**Fig. 2A**). Hemoglobin was 11.6 with normal coagulation parameters.

The gave their consent for a high-risk cranial surgery without blood transfusion for evacuation of progressing EDH. Post-EDH surgery, the long bone fracture surgery could not be assured without transfusion under the same anesthesia. Since he needed low-dose inotropic support, the family did not give consent. He was sedated and mechanically ventilated. The following day, after reassurance from the orthopaedic team, he underwent an open reduction and internal fixation of the fractured shaft of the left femur. He had a hemoglobin of 9.2 g/dL, haematocrit of 27%, prothrombin time of 24.7 seconds, and international normalized ratio (INR) of 1.8 prior to surgery. Postoperatively he was hypotensive, necessitating inotropic support and mechanical ventilation. His hemoglobin was 7.8 g/dL. Since his motor response was poor with GCS of $E_2V_1M_5$, magnetic resonance imaging (MRI) of the brain was done on the fourth postoperative day (POD), which suggested a grade II diffuse axonal injury (→**Fig. 2B**). Vascular injury and infarction were ruled out. Expecting prolonged mechanical ventilation and to facilitate pulmonary toilet due to lung contusion, percutaneous tracheostomy was done. On POD 5, his hemoglobin dropped to 6.6 g/dL and INR was 2.49, and he developed *Acinetobacter* pneumonia and septic shock requiring vasopressor support with serum lactate of 2.4 mmol/L in the absence of hypovolemia. Despite absolute indication for

transfusion of blood¹ and clotting factors, transfusion was abstained due to recurrent denial of consent by the parents. Nonetheless, the patient was managed with appropriate intravenous (IV) antibiotics based on culture and sensitivity. Following the family's consent, injection of vitamin K 10 mg once daily for 3 days, injection recombinant human erythropoietin alfa 10,000 units subcutaneously once daily for 3 days, and IV infusion of ferric carboxymaltose 500 mg once weekly for 3 weeks were given. Once the sepsis settled, the patient was weaned from the ventilator, inotropic support, and transferred for rehabilitation with GCS of $E_3V_1M_5$ and hemoglobin of 10.9 mg/dL.

Discussion

Polytrauma involving traumatic brain injury poses serious threats like hemorrhagic shock and consumption coagulopathy and necessitates and signifies the role of blood and blood components for stabilization and maintenance of homeostasis in these patients. Elizabeth Topley and R. Clarke in their study demonstrated a considerable drop in red cell volume following a major trauma, nearly 11% in the next 14 days.² Most severe drop occurs in the first 48 hours. Anemia leads to reduced oxygen-carrying capacity of blood, thereby increasing the susceptibility of injured brain to deleterious effects of hypoxia. Aggressive resuscitation with crystalloids and colloids further aggravates cerebral injury by increasing the intracranial pressure due to increased cerebral blood flow. Apart from prolonged recovery, secondary cerebral ischemia can lead to severe postdischarge cognitive impairment.³ The strategy of restrictive red blood cell transfusion in an acute brain injury patient with a target of 7 to 9 g/dL does not hold in comatose patients.⁴ Use of extensive perioperative blood salvage techniques, recombinant erythropoietin, iron complex injections, and antifibrinolytic agents cannot replace the benefits of blood and blood component transfusion. The real challenge of blood transfusion arises in JW patients where an LMP is caught in the

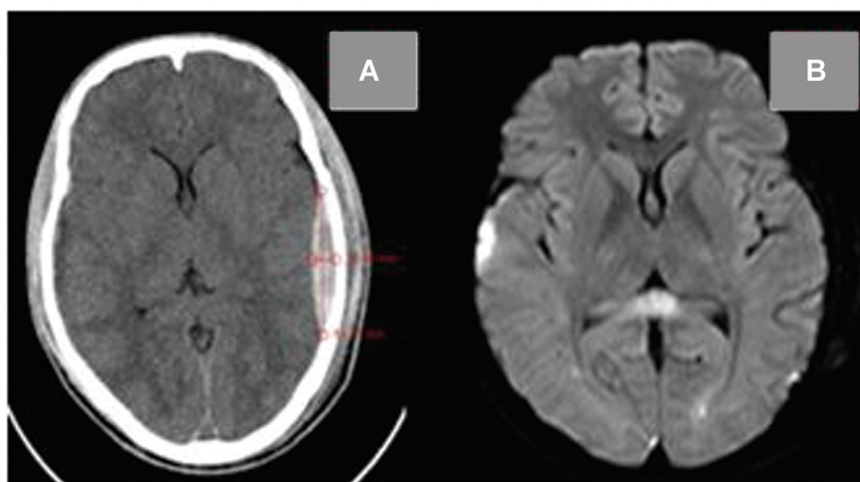


Fig. 1 (A) Computed tomography (CT) of the brain showing left parietal extradural hematoma (EDH). (B) Magnetic resonance imaging (MRI) of the brain showing axonal injury.

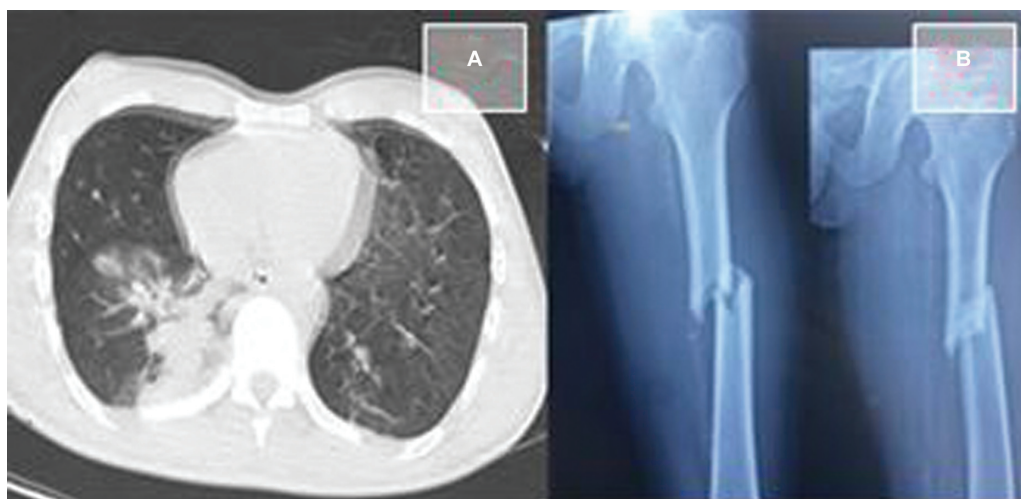


Fig. 2 (A) High-resolution computed tomography (HRCT) of the chest showing pulmonary contusions. (B) X-ray showing fracture of the left femur shaft.

loop of protecting the sanctity of faith over saving a patient's life. It is a peculiar conflict between the two basic rights under Article 21 of the Indian Constitution, right to life (no person can be deprived of life) and right to personal liberty, as well as right to religion under Article 25. It is a disagreement between a patient's autonomy and an LMP's ethical obligation toward beneficence, nonmaleficence, and justice.⁵ Although right to life has precedence over other rights, it may not be sufficient to safeguard the LMP in case of a medicolegal dispute. Yet, there are two options for an LMP in such scenarios: either inform the state authority and act as per their directions or bring it to the notice of the Chief Justice through a registrar. An LMP abrogating himself or herself to the role of a "paternal doctor," that is, the legal role of a doctor to decide even in dire emergencies may not be a strong enough defense in the case of a JW patient. He or she may be liable under law of torts and crime.⁶ Even the National AIDS Control Programme and Drugs and Cosmetics Act do not provide guidelines in case of refusal of transfusion.⁷ In the American reimbursement system, there exists a 2023 ICD-10-CM Diagnosis Code Z53.1, which indicates "procedure and treatment not carried out because of patient's decision for reasons of belief and group pressure." Its practical implication in the Indian scenario is unknown.⁸ However, hemoglobin-based blood substitutes, cryoprecipitated antihemophilic factor and factor VIII preparations may be accepted by JW patients.⁹

Conclusion

It is imperative to identify patients of JW faith, and consent to interventions and situations that need transfusions. LMPs should educate themselves about this group and take consent accordingly. Indian laws place "the right to life"

above the right to religion by principle. However, the District Medical Officer may need to be informed if going against the consent of the patient and family is imminent, to safeguard against litigation.

Conflict of Interest

None declared.

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