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Ethics in Challenging Times

When a Devastating Event Occurs: Ethical Analysis of a Clinically Challenging Case

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Case: A 65-year-old man with a previous medical history of hypertension, hyperlipidemia, and obesity is diagnosed with renal cell carcinoma with associated inferior vena cava (IVC) thrombus and concern for pulmonary metastases. He presents to the OR for nephrectomy and IVC thrombectomy. His intraoperative course is complicated by bleeding and subsequently profound hypoxia and hypotension concerning for pulmonary embolus (PE). Intraoperative transesophageal echocardiogram corroborates the diagnosis of PE. The surgical team proposes initiation of extracorporeal membrane oxygenation (ECMO) and cannulates the patient. Following heparinization, he becomes profoundly coagulopathic, requiring massive transfusion. Postoperatively, he is transferred to the ICU, persistently coagulopathic with ongoing transfusion requirements. He later undergoes a CT angiogram notable for extensive bilateral PEs. He is taken for suction thrombectomy, which is unsuccessful. He remains in the ICU, now with evidence of multisystem organ dysfunction, requiring high levels of oxygen, hemodynamic, and extracorporeal support. In the preoperative period, future goals of care were not discussed, nor was the need for possible ICU admission or invasive life-preserving care. He has no previously designated health care proxy (HCP). His surgical team is pushing for ongoing life-sustaining treatments; however, the hospital has limited ECMO capacity.

Clinical and practical challenges

This case illustrates several key concerns regarding perioperative consent for high-risk patients. Best practice guidelines suggest that true informed consent requires 

A. Demonstrate mental capacity
B. Are given adequate information to receive an informed decision
C. Are not subject to coercion.

Surgical consent should include discussion of the patient’s wishes in potentially foreseeable circumstances (e.g., unexpected intraoperative findings, common complications) (Arch Phys Med Rehabil 2018;99:1927-31). However, consent for potentially curative cancer surgeries frequently challenges these ideals. Patients may not perceive themselves as having a choice besides that of pursuing surgery, and thus may not be able to evaluate long- and short-term risks and benefits (Clin Orthop Relat Res 2015;473:3564-72). This sense of obligation to pursue aggressive “miraculous” treatments, combined with clinician confidence, creates a scenario in which obtaining true informed consent is extremely challenging (J Crit Care 2013;28:28-39).

Surgical resection of renal cell carcinoma with IVC thrombus carries with it a significant risk of major complications (up to 30% in some studies) and death (up to 10% at 90 days) (BJU Int 2004;94:33-41; J Surg 2014;18:282-7). Preoperative informed consent should have involved discussion of perioperative and postoperative life-sustaining interventions such as mechanical ventilation and/or pressor support. Ideally, the surgeon would elicit preferences regarding duration and extent of life-sustaining therapies, perhaps making recommendations to guide the patient based on the patient’s values, goals, and understanding of their situation. The patient would have the opportunity to identify and instruct a surrogate decision-maker prior to surgery.

As this case progressed, there were other missed opportunities for discussion of preferences and goals of care. As the apex of life-supporting technologies, ECMO carries with it a unique set of ethical concerns. While ECMO is envisioned as a bridge to recovery or to longer-term therapies, patients who fail to recover or qualify for other therapies may end up on a “bridge to nowhere.” As cannulation is typically emergent, clinicians and surrogate decision-makers must make high-stakes decisions under severe time constraints and without a clear sense of prognosis (Front Immunol 2019;10:2699). Consensus-seeking collaboration between clinical teams offers the greatest likelihood of identifying situations in which treatments may be beneficial but is time-consuming and may not be feasible (J Am Coll Surg 2009;208:1115-23). However, many physicians involved in the care of ECMO patients believe that, despite time constraints, consent should not be presumed but, rather, elicited prior to initiation of extracorporeal life support (Otolaryngol Head Neck Surg November 2021). Ideally, delineating parameters of treatment pre-initiation provides guidance for directing care and avoiding provision of non-beneficial care, as does discussion of specific risks and their possible outcomes (Lancet Respir Med 2020;8:518-26; Mol Cell Biochem 2021;476:1891-5).

In this case, although family members were informed postoperatively that there were “severe complications” during the procedure, consent was not sought prior to cannulation for ECMO, and no attempts were made to elicit other preferences during the period of extreme decompensation intraoperatively.

Moral dilemmas and ethical issues in delivering care and treatment

In an acute care setting, especially when extremely rare complications occur, it becomes very difficult for teams to prognosticate accurately. The emotional and moral burdens of the complication, the immediate challenge in dealing with the complication to save the patient’s life, and the ethical dilemmas of instituting life-sustaining but possibly futile interventions can create a great deal of anguish. In these circumstances, differences in opinions about clinical decision-making can arise when teams disagree on what constitutes best-interest care for the patient (J Adv Nurs 2016;72:1490-505). Often in these judgments, the clinical expertise, experience, and a level of ethical comfort of the clinician are taken into account. It is debatable whether there is adequate consideration given to true patient preference.

“Non-beneficial treatment” is any medical treatment a physician determines that:

1. “Will be ineffective for producing the physiologic effect that the patient/surrogate desires or expects of the medical treatment;”

Continued on next page
When a Devastating Event Occurs
Continued from previous page

2. Will produce no effects that can reasonably be expected to be experienced by the patient as beneficial for accomplishing the patient's expressed and medically obtainable goals;

3. Will more likely cause harm than benefit for the patient;

4. Has no realistic chance of returning the patient to a level of health that is in accordance with their previously stated wishes or general worldview;

5. Would serve only to maintain the patient's life in a permanently unconscious state. (Perm J 2013;17:23-7)

In addition to concerns about provision of nonbeneficial treatment, just allocation of resources is also relevant in this scenario. Life-preserving treatments are a limited resource and selectively offered to patients who have a generally good chance of survival. When teams are heavily invested in the survival of patients whom they have electively brought to surgery, resource allocation may not guide their care decisions (Int J Qual Health Care 2020;32:694-700).

Involved teams may find it useful to consider the following principles when considering life-preserving care in the acute setting:

The individual needs of the patient
Personalized medicine includes making best-interest decisions about patients. Physicians should reflect upon the expected quality of life anticipated after the intervention, their previous understanding of the prognoses, and alternative modes of treatment that the patient may consider. Literature points out that patients often expect better outcomes than the prognosis of their disease. Patients who overestimate their expected long-term outcome are more likely to experience high-intensity interventions of questionable benefit such as dependence on non-beneficial life-preserving interventions (Breast Cancer Res Treat December 2016). Physicians should discuss through repeated and detailed dialogue with their patients true expectations and candid prognostication. Compassionate, sincere discussions may build trust and gain a greater sense of the patient’s personal, emotional, and spiritual needs. Physicians should also take into consideration the role a patient’s family members may play in the patient’s decision-making process (Perm J 2012;16:60-3). In this case, a more detailed, multidisciplinary preoperative discussion could have better prepared both the patient and teams for complications. When teams are not prepared for complications and are caught unprepared, their subsequent actions may become haphazard and impulsive. The risk of the thrombus embolizing to the pulmonary circulation should have been discussed between the patient and the team with all options on the table (J Oncol Pract 2008;4:207-9).

The goal of the treatment in question
Physicians must explicitly explain the goals of the intervention offered. Very often, it may not be clear what the outcome may be. This uncertainty if stated up front adds to trust-building. Explaining the rationale for various treatment options can help make the situation clearer (HEC Forum 2009;21:275-91). In this case, the goals of ECMO and inadequacy of alternatives such as mechanical ventilation alone in preserving oxygenation and circulation should be explained in detail.

Offering a trial of life-preserving therapy
When an unexpected devastating complication occurs in the course of elective surgery, often a trial of life-preserving therapy is offered. A time-limited trial can give the patient a chance of recovery and can give a “moral space” to the family and the teams involved to accept the unexpected scenario and focus more on what the patient may experience. For example, the patient or their family may not understand the severity of the illness. Physicians are known to avoid giving details of a poor prognosis. Developing consensus in these circumstances requires time and empathy (Creat Nurs 2018;24:166-72).

The likelihood of achieving treatment goal(s)
Patients may view outcomes differently than health care providers. This adjustment of differing expectations can be achieved through thorough communication. Understanding the background factors motivating these perspectives should also be explored. For example, the patient or their family may not understand the severity of the illness. Physicians are known to avoid giving details of a poor prognosis. Developing consensus in these circumstances requires time and empathy (Creat Nurs 2018;24:166-72).

The risks, costs, and benefits of pursuing the intervention, compared with alternatives
A thorough risk-benefit assessment should be taken into account when offering life-preserving care, especially when the intervention may not produce results that improve the expected quality of life or be in parallel with patient preferences (J Eval Clin Pract 1997;3:69-75). It is essential that physicians remove their own personal biases in clinical and ethical decision-making.

In conclusion, patients undergoing high-risk surgeries should be educated about devastating complications and possible management options preoperatively. Understanding perspectives and communicating possible scenarios explicitly can provide a better overall experience to the patient as well as the teams involved.