Fast track: are surgeons pushing the envelope too far in cardiac surgery?

Pressure from a variety of sources, mostly from HMOs and insurance companies, has resulted in certain surgical procedures being performed utilizing a very short hospital stay (fast track). Cholecystectomy, a procedure that required pre-admission to the hospital, and rather prolonged hospital stay, has almost become an outpatient procedure. As a requisite, patients are fully worked up prior to admission, are admitted the same day of surgery, and are operated upon hours later. Extubation is commonly performed in the operating room and, later the same day or the next morning, the patient is discharged to be followed-up in a clinic. Advantages of this approach include patient comfort and cost containment for payers. In the United States, insurance companies usually have to be informed of the patient’s need for surgery and have to pre-approve the procedure as well as the number of days they will be allowed in the hospital for surgery. Extra days are usually denied for payment, unless there is an appeal submitted by the surgeon or by the appropriate hospital authorities. By proposing surgical care strategies such as those recommended by Srivastava et al. [1], surgeons are creating new standards that will be difficult to replicate, especially in certain medical domains, where the complexity of patients treated is increasing as a result of serious comorbidities. In cardiac surgery, patients often require thoughtful surgical planning, and yet surgeons are being pressured to reduce health care costs by reducing length of hospital stay. In this article by Srivastava et al. [1], the authors report their experience on surgical closure of atrial septal defects (ASD) as outpatient procedure, and conclude that it is safe to perform ASD closure on an outpatient basis with limited hospitalization time. This is despite the fact that patients were subjected to extracorporeal circulation, cardioplegic arrest, and what is considered by most cardiac surgeons as major surgery. In the United States, this is one operation in which mortality approaches zero. Complications after ASD closure such as arrhythmias, delayed bleeding, pneumothorax and others, can still occur. Admittedly, the authors did not report any of these complications and no patient had to be re-admitted post discharge. The question is then, should we implement fast-track surgery for patients who are undergoing open-heart procedures in which cardiopulmonary bypass is used? Are we creating fast-track standards that are excessively high for cardiac surgery? Are surgeons eager to take unnecessary risks, especially for operations in which mortality rates should approach zero?

Fast-track surgery is a comprehensive approach, designed to accelerate recovery, reduce morbidity and shorten convalescence to ultimately improve outcomes and reduce costs. The question becomes, how far can we go in cardiac surgery? Are we truly accomplishing these goals by discharging patients home so shortly after cardiac surgery, as advocated by Srivastava et al. [1]? What if, in the United States, one of these patients was to die or suffer serious consequences of a complication one or two days after discharge from hospital? Consider the cost savings for one or two days of hospital stay versus the financial award of a jury, should negligence be found in such a case. While we should continue to push for earlier discharge, we should not place our patients at risk, regardless of cost-containment considerations. After all, simple procedures such as ASD and PDA closures are more and more commonly performed via the percutaneous route in the catheterization laboratory. Similarly, coronary patients are often treated by balloon angioplasty and stenting. What we are left with is a population of rather ill patients, who require more, rather than less, time in the hospital for management of associated comorbidities. We believe there comes a time when one has to say that enough is enough, and one-day cardiac surgery, to these reviewers, seems a little bit too much. In the environment in which we live, it is not acceptable to take risks, and an early discharge, such as described by the authors, simply exposes the patients and the health professionals to unnecessary risks. Open-heart surgery is still an invasive procedure, and the rush to discharge in one day, may be simply an unrealistic expectation.

Furthermore, the authors have suggested ASD closures in the adult as their model for fast track. Adult ASD closure in North America is a rather rare procedure, as most of these patients are operated upon earlier in the lives. Alternatively, their ASDs are closed via the percutaneous route. Most of the patients who were considered low-risk in the past are being treated via the percutaneous route, i.e., angioplasty, and only patients who are high-risk (low ejection fraction, renal failure and others) and the elderly, are being evaluated for surgery. It may be possible that the minimally invasive approach to these diseases may allow for shorter hospital stay. However, one again has to consider that minimally
invasive may not relate to the size of the incision only, as these patients are still placed on the heart lung machine and have cardioplegic arrest for their procedures.

In the end, a study such as the one by Srivastava et al. [1], recommending outpatient ASD closure and implying that this might be applicable to other open-heart surgical procedures, may cause more harm than good to the surgical community. Insurance carriers and HMOs are looking for a reason to decrease health care costs, and this is an area they might pursue. Once this article is published, pressure will mount on cardiac surgeons to discharge patients earlier and earlier. In the view of these reviewers, outpatient cardiac surgery might be harmful to the patient, and might make the care providers vulnerable to litigation should an adverse outcome occur. This is an important point and one that should be discussed in our societies’ meetings. Guidelines should be developed to prevent unnecessary pressure for risk-taking by discharging patients too early after cardiac surgery. Since these reviewers evaluated this manuscript, we prospectively made efforts to encourage early discharge after CABG in our service. We have been able to convince anesthesiologists to extubate patients in the operating room and followed the patients in the ICU to determine who was ready for 24 h discharge. No patient was ready for a variety of reasons, as outlined above, and most of them were elderly, with poor EF, and still had chest tube drainage the morning after surgery. We may be pushing the envelope too hard and too fast regarding the matter of fast track in cardiac surgery, in light of the population of patients we currently operate upon. The concern exists that we might do more harm than good by following the suggested pathway for cardiac surgical patients.

Reference


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