

UNDERSTANDING AND MANAGING COMPLICATIONS IN NEUROSURGERY

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It is a well-known surgical maxim that only two types of surgeons do not have surgical complications; those who do not operate, and those who lie. Surgical complications in other words, are unwanted but undeniable part of surgery. There is not one operation with a 0% complication rate and therefore statistically, if a surgeon does not have complications, he probably has not operated enough. Despite their inevitability, complications convey a sense of gravity to the public, health professionals, and the policy makers alike. There is no question that complications are a source of stress and suffering for patients. However, occurrence of a complication takes its emotional toll on the operating surgeon as well. Studies on how an adverse event leads to feelings of failure, self-blame and long-term influence on surgeons' personalities clearly elaborate that the patient does not suffer alone following a complication¹. Various definitions and categorization models have been proposed, studied and discarded for surgical complications. This allows us an opportunity to observe how complications can be viewed from differing standpoints. It is perhaps appropriate to define a surgical complication as 'any deviation from the expected course during or following a surgical procedure'. Some have called this over simplistic. Others have attempted to grade the severity of a complication based merely on increase in duration of hospitalization and need for critical care admission, or an interventional procedure², although this also has been subjected to critique. Another proposed category is 'errors in technique or judgement', which can naturally result in complications, although these remain the most difficult to establish, not only from a technical point of view, but also from its legal implications. It is therefore understandable that most complications turn out to be the direct consequence of a patient's severity of illness and comorbid conditions. These are curiously termed as 'unavoidable complications' and remain the most popular category. The term 'unavoidable' however, is also falling out of favour as it implies that the rest of the complications are somehow 'avoidable'. It is assumed that complications decrease with more experience, and the surgeon's learning curve is universally considered an explanation for this. Experience of oncologic surgeries performed by surgeons in high-volume centres and reduction in morbidity and mortality also supports this inference. However recent introduction of minimally invasive techniques allowed us to study the concept of learning curves in more detail and we now understand that surgeons beyond their learning curves may continue to have complications³. Recent data from Japan, in contrast shows the peri-operative management of patients with complications as a much more important factor in preventing further complications⁴. A critical analysis of factors leading to complications and their management helps in learning from these events. Morbidity and Mortality forums are indispensable in this regard. In the true spirit of these forums, complications are discussed without blame, and strategies for prevention, earlier recognition or better management are identified. This process highlights learning as a community; a surgeon shares his/her complications so that others understand how to prevent, diagnose or manage similar problems in future. In the end, we can but only learn from these unfortunate inevitabilities. Ritualized discussions in these forums, without a critical thought process tend to move away from this spirit and result in lost opportunities to learn from complications.

REFERENCES

1. Luu S, Patel P, St-Martin L, Leung AS, Regehr G, Murnaghan ML et. al. Waking up the next morning: surgeons' emotional reactions to adverse events. *Medical Education* 2012; 46: 1179-118
2. Dindo D, Demartines N, Clavien PA. Classification of Surgical Complications: A New Proposal with Evaluation in a Cohort of 6336 Patients and Results of a Survey. *Ann Surg.* 2004; 240(2): 205-213.
3. Way LW, Stewart L, Gantert W, Liu K, Lee CM, Whang K, Hunter JG. Causes and prevention of laparoscopic bile duct injuries: analysis of 252 cases from a human factors and cognitive psychology perspective. *Ann Surg.* 2003 Apr;237(4):460-9.
4. Sasako M, Katai H, Sano T, Maruyama K. Management of complications after gastrectomy with extended Lymphadenectomy. *Surgical Oncology* 2000;9:31-34.