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Quality of Health Care in Surgery

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Abstract

Although the term "surgery" is usually associated with a hospital environment, general anesthesia, operating table and complex operations that require long-term preparation and large numbers of people, but in reality the picture is simpler. Surgery is a branch of medicine that uses hand and instrumental surgical techniques on patients to investigate and/or treat pathological conditions such as diseases or injuries, for the purpose of improving physical function or appearance. To help patients with the highest possible quality of service, surgeons are required to follow up on modern technology and to refine their professional skills.

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Introduction

Although surgical complications have no doubt been around since the stone age, when primitive men first used pieces of sharpened flint to chisel holes in injured heads or perhaps to open painful ulcers or tumours, it was really not until the late 18th century that those complex pathological changes which can take place inside wounds, were studied scientifically [1]. For in the last two centuries, surgery and medicine in all of their branches have changed, both conceptually and technically, beyond recognition. Conditions which had hitherto been seen as “natural” - such as inflammation, pus, pain, haemorrhage, fever and high mortality - were increasingly perceived as essentially extraneous factors which could be eradicated from the surgical environment if not yet, at least at some stage in the not too distant future. And while post-Renaissance anatomy and the experiences gained in the treatment of gunshot wounds had made the surgeon much more confident in so far as he now knew exactly what he would encounter beneath the surface whenever he took up his knife to operate, it was really not until after 1846 that this vast treasury of accumulated body knowledge began at last to reap a sweeping therapeutic harvest in terms of new and increasingly safe operations which eventually extended into every cavity area and organ of the human body. And ironically, one might say that nowadays the range of potential surgical complications is greater than ever before; but this is only because the modern surgeon can confidently address problems within the human body which would have been unimaginable 25, 50, 100 or 200 years ago, yet by the judicious use of that vast armamentum of clinical techniques available today, he stands a very good chance of stabilizing and overcoming such complications as and when they occur.

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Surgery

Human tissues have genetically determined properties that make their responses to injury generally predictable [2]. Depending on this predictability; principles of surgery that help to optimize the wound-healing environment have evolved through time and through basic and clinical research.

The decision to perform surgery should be the culmination of several diagnostic steps. In the critical thinking analytic approach the surgeon first identifies the various signs and symptoms and relevant historical information; then, using available patient and scientific data and logical reasoning, the surgeon establishes the relationship between the individual problems.

The initial step in the pre-surgical evaluation is the collection of accurate and pertinent data. This is accomplished through patient interviews; physical, laboratory, and imaging examinations; and the use of consultants when necessary: Patient interviews and physical examinations should be performed in an unhurried, thoughtful fashion. The surgeon should not be willing to accept incomplete data, such as a poor-quality radiograph, especially when it is probable that additional data might change decisions concerning surgery.

Many surgical patients are old, sick, have undergone major surgery or have had emergency admission [3]. Consequently, the duty surgeon will be faced frequently with critically ill surgical patients with whom they are not familiar. The establishment of high dependency units (HDUs) has been an undoubted advance but not all unwell patients can be cared for there and, in any event, patient care in HDU often remains the responsibility of the surgical team. Furthermore, to the unfamiliar, the HDU can be a daunting place. The CCrISP (Care of the Critically Ill Surgical Patient) programme provides practical training to support the junior doctor who is faced with managing unwell surgical patients today. In particular, it provides a simple, safe and accepted approach with which you can begin to assess and manage every patient you encounter, no matter how complex.

The capacity of surgical patients to withstand surgery and any complications depends on their age, underlying disease process and any co-existing illnesses. Once surgical patients develop multiple organ failure (and hence require intensive care unit [ICU] support), overall mortality can be around 50%. It is clear, therefore, that detecting and treating problems before this stage is reached is much the preferable course of action. Unfortunately, critical surgical illness can often be detected easily only once a relatively advanced stage has been reached. The challenge for all surgeons who deal with patients who may become critically ill is to develop a system of practice which will allow the identification and correction of complications at the earliest stage.

The preoperative assessment involves an overall analysis of the patient's condition and preparation of the patient for the proposed procedure [4]. This involves taking a careful history, confirming that the indication for surgery still exists (e.g. that the enlarged lymph node that was to be removed for biopsy has not spontaneously regressed), and that the patient is as fit as possible for the procedure. Do not accept someone else's diagnosis - it might be wrong.

Fitness for a procedure needs to be balanced against urgency - there is no point contemplating a referral to a diabetologist for better diabetic control for someone with a ruptured aortic aneurysm in need of urgent repair. The assessment process can be considered in terms of factors specific to the patient and to the operation.

Microsurgery

The term microsurgery defines a surgical technique that involves micro dissection and micro manipulation of particular body tissues [5]. Microsurgery is undertaken using a high-powered electronic microscope. This provides greater levels of magnification, or enlargement, than the naked eye can see. With this level of magnification, specialised instrumentation is required to accommodate the type of microsurgery being undertaken. The origins of these instruments are based on traditional jewelers' forceps, used to repair fine watches.

Microsurgery is an essential part of almost every branch of modern surgery. For instance, most areas of reconstructive plastic surgery, vascular surgery, neurosurgery, surgery to the inner ear, eye surgery, and some areas of gynecological surgery could not be undertaken without the use of a microscope to magnify blood vessels, nerves and microscopic tubular tissues.

Microsurgery is ideal for all forms of small animal surgical research utilizing rats, guinea pigs, mice and rabbits sparingly [6]. Only use animals in necessary research where there is no substitute for such experimentation in live bodies, and with all care and pain elimination. Such necessary work is far cheaper and faster than in traditional large animal research. In our laboratories, micro-surgeons in training can perform a total limb transplantation in our rodent model in about two hours, or a rodent kidney transplant in about an hour, as there are only three anastomoses in the latter procedure. Appropriate protocols allow such rapid conclusion of new surgical research ideas in significant numbers to speed up introduction of innovations into human surgery.

Microsurgery for small vessels and tubes and nerves is now well established and used in almost all specialties, and increasingly, in surgical research. Urologists can use microsurgery skills to conserve or graft nerves to preserve distal nerve function in total prostatectomies. Plastic and reconstructive and cancer surgeons use microsurgery in ever more complex reconstructive operations. The necessity to avoid complications by diligent adherence to the principles of microsurgery is becoming even more important as surgery enters an even smaller terrain of "miniature surgery". Microsurgery is only the beginning of the miniaturisation of surgery.

Minimally Invasive Surgery

Minimal access surgical techniques are now considered to be the gold standard for biliary, anti-reflux and bariatric surgery [7]. This is mainly due to improved patient recovery with reduced pain, shorter hospital stay and a quicker return to normal daily activities. This approach is also more cost effective to community healthcare once the initial investment in instruments and devices have been made.

Following the first laparoscopic cholecystectomy, performed by Phillipe Mouret in 1987, there were a large number of surgeons attempting this new technique. Indeed, many of the early operations were fuelled by strong public demand and supported by commercial companies. However, it was not long before hospitals and surgical societies noted the increased rates of complications associated with these new techniques; there were reports of bowel and aortic injury, and even death in patients undergoing procedures which had been relatively risk free when performed in the traditional open manner.

The reason for the high rate of initial complications was the failure to recognise that the adoption of minimally invasive techniques for cholecystectomy required the surgeon to learn new skills. Indeed, the skills acquired in open surgery have not led to an improved performance in the laparoscopic arena. Hence all the surgeons were effectively novices in this field,

regardless of their previous surgical experience. Furthermore, there was a learning curve associated with the acquisition of new skills, and many of the complications occurred due to a lack of initial training. Once a surgeon had passed beyond the learning curve, the complication rates were visibly reduced.

Minimally invasive surgical techniques have rapidly gained acceptance and led to dramatic improvement in the morbidity and mortality of surgical procedures. However, the procedures have brought new complications, many of which are due to the surgeon's lack of knowledge and experience. While many of these complications are now rare, there is an exponential growth in the number and type of surgical procedures being performed laparoscopically. This is in tandem with new instruments and energy sources to aid the laparoscopic surgeon. Therefore it is more important than ever to ensure that the procedures are performed safely, with ongoing research to confirm superior patient outcomes when compared to traditional surgical methods.

Robot-assisted laparoscopic surgery continues to expand among surgical modalities in a variety of specialties [8]. With this expansion, it is increasingly important to provide surgical trainees with adequate training to include robot-assisted surgery in their independent practices. Additionally, just as assessment of basic laparoscopic skills has become a prerequisite of graduation from general surgical training, assessment of robotic fundamentals may also become a requirement of surgical training. Finally, robotics is a new and evolving dimension of surgery that holds promise to expand into nearly every surgical subspecialty and become an important modality that many fully trained surgeons will have to learn. For these reasons, developing training strategies and formalized curricula for robot-assisted surgery is a critical task for today's surgical educators.

Robot-assisted surgery represents a unique platform with many differences from standard laparoscopy and open surgery. Current robotic systems function through a communication system in which surgical tasks are performed by a platform at the patient bedside, while the surgeon exerts direct control over this platform using a console, removed from direct contact with the patient. The surgeon's console allows the surgeon to control the laparoscopic camera and to "clutch" instruments, making it possible to use their full length, while the console masters are kept at a comfortable distance from the surgeon.

Cosmetic Surgery

The biggest challenge in winning a cosmetic surgery malpractice case comes down to the fact that the procedure is elective and not usually considered medically necessary [9]. Almost all cosmetic procedures are elective. Therefore, a patient must understand the nature of the treatment/procedure being recommended and the distinction between elective and medically necessary. A detailed discussion about a procedure goes a long way in winning a patient's confidence as well as giving them the comfort of knowing the nature of a procedure beforehand. Elective surgery is a planned, non-emergency surgical procedure. Such procedures may be either medically required (i.e., cataract surgery) or optional (i.e., breast implant) surgery. Just because certain surgeries are considered elective, they may still serve to extend life or improve the quality of life physically and/or psychologically. Cosmetic and reconstructive procedures, such as a facelift, tummy tuck, or nose job, may not be medically indicated, but they may benefit the patient in terms of raising self-esteem. Other procedures may improve quality of life even though they are technically an "optional" or elective surgery. There are also those elective surgeries that are necessary to prolong life, such as an angioplasty; however, they are unlike emergency surgeries which must be performed immediately. Required elective procedures can be scheduled at a patient's and surgeon's convenience. Each case is different. Regardless of the reason a patient is undergoing a cosmetic procedure, whether medically indicated or optional, the patient must be advised

of all aspects of the type of procedure recommended for them. Confusion by a patient as to the difference between those procedures that are purely optional, and usually patient driven, and those procedures that seek to improve functional quality of life can open the door to a liability claim down the road.

During the patient discussion about the type of treatment/procedure recommended, it is important for a doctor to avoid making guarantees regarding an outcome. For obvious reasons, surgeons rarely execute written contracts with patients that purport to guarantee or otherwise ensure certain results from specific medical treatment/procedures.

Surgery and Law

Codes of ethical behaviour have existed since the earliest times and are usually based on a combination of values derived from religion and society [10]. There has always been intense interest in the behaviour of doctors because of the privileged role they hold in society. Involvement in matters of life and death are everyday events for the doctor and it is no surprise that issues of probity, financial behaviour and personal conduct should be considered fair game for those who consider themselves best placed to comment on and regulate the doctors' behaviour. This is, of course, quite separate from the rigorous scrutiny of clinical judgement, which is a continuing part of good medical practice.

There will always be a large gap between the potential benefits of medical developments and the resources required to make them real. The doctor's responsibility is towards multiple patients under his care. There are always uncertainties in any risk/benefit analysis and the easy way out is to treat the patient to the maximum, whatever the uncertainty, until the money runs out. However, it is wrong for doctors to negate this aspect of their responsibilities and it provides a powerful argument to support the need for doctors to be heavily involved in health-system management; if the doctors do not accept this responsibility it is likely to be assumed by non-clinical managers whose decisions will be less acceptable.

As medicine has moved from being life-saving to life-enhancing, patient expectations have risen substantially and, in many countries, nothing less than a perfect outcome is acceptable. However regrettable, defensive medicine has become a reality and many costly or unpleasant investigations are now ordered which are not always necessary. The surgeon perceives the rising tide of medical litigation as a personal threat and, in the USA, some specialities have become so high-risk that obtaining malpractice insurance is prohibitively expensive and trainees are increasingly hard to find.

The lawyers and patients would argue that a number of surgeons are technically incompetent and should not be allowed to continue in practice. By this view, the patient who has been damaged should receive financial compensation and the hospital where the surgeon worked will need to review its procedures to prevent the same mistake from recurring. The doctors feel that financial settlements and lawyers' fees are exorbitant and represent a source of easy money; patients and their lawyers do not understand why these surgeons were ever allowed to operate in the first place.

Conclusion

Surgery, as well as every other branch of medicine, has the task of providing the best health care to patients through the advancement of clinical procedures and treatment methods with continuous training of medical staff. It is related to many other medical branches and treatment methods. Surgical treatment of patients does not always mean performing the operation but also, for example, it can mean adjusting the hand or leg fracture. The development of modern information technology has made

it possible to produce the most complex instruments, which has made progress and development of the surgery. For patients, this means a high level of health care quality.

References

1. Chapman A (2007) A history of surgical complications In Hakim NS, Papalois VE (Eds.) Surgical complications diagnosis and treatment, Imperial College Press, London, UK, 36-37.
2. Hupp JR (2008) Principles of surgery In Hupp JR, Ellis III E, Tucker MR (Eds.) Contemporary oral and maxillofacial surgery (5th Edn.), Mosby Elsevier, St. Louis, USA, 41.
3. Loftus I (Ed.) (2010) Care of the critically III surgical patient (3rd Edn.) Hodder Education, The Royal College of Surgeons of England, London, UK, 2.
4. Ellis H, Caine R, Watson C (2016) General surgery - lecture notes (13th Edn.) John Wiley & Sons, Ltd. Chichester, UK, 11.
5. Storch JE, Rice J (2005) Reconstructive plastic surgical nursing - clinical management and wound care. Blackwell Publishing Ltd., Oxford, UK, 281.
6. Owen E (2007) Complications of microsurgery In Hakim NS, Papalois VE (Eds.) Surgical complications diagnosis and treatment, Imperial College Press, London, UK, 737.
7. Aggarwal R, Undre Sh, Darzi A (2007) Complications of minimally invasive surgery In Hakim NS, Papalois VE (Eds.) Surgical complications diagnosis and treatment, Imperial College Press, London, UK, 773-788.
8. Zihni A, Gerull W, Awad MM (2019) Robotic simulation training In Tsuda Sh, Kudsi OY (Eds.) Robotic-assisted minimally invasive surgery - A comprehensive textbook, Springer Nature, Cham, Switzerland, 13.
9. Durant CB, Hupp JR (2018) Managing medicolegal issues surrounding esthetic facial surgery In Ferneini EM, Castiglione Ch L, Banki M (Eds.) Complications in Maxillofacial Cosmetic Surgery - Strategies for Prevention and Management, Springer International Publishing AG, Cham, Switzerland, 107-108.
10. Mansell VJ, Mansel MA (2007) Medico-Legal Issues In Hakim NS, Papalois VE (Eds.) Surgical Complications Diagnosis and Treatment, Imperial College Press, London, UK, 954-975.