

Ethics and Challenges in the Practice of Neurosurgery in the Rural Setting- Irrua Specialist Teaching Hospital Experience



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Abstract

Ethical issues have been at front burner of medical practice. It has guide the practice of neurosurgery, with the rural settings not been an exception to the application of the basic moral tenets which form the core value of ethics. This ethical principle guides the safe practice of neurosurgery in view of its sophisticated rigorous training and practice schedule aiming to protect the interest of the patients and the neurosurgeon. Our review looks through a literature search of medical ethics as it is applicable to the practice of neurosurgery.

Keywords: Ethics; Neurosurgery; Challenge

Introduction

Ethics has been defined in various ways with morality as it concerned the practice of medicine. It encompasses the various approaches to understanding and examining moral behavior. The study of ethics can be broadly divided into two areas normative and non- normative ethics. Normative ethics answers the question, what one has to do for a given moral dilemma. Non- normative ethics simply describes how people reason and act in moral situations, without commenting on the inherent rightness of their actions. The application of these principles to health care cum neurosurgery is quite new and evolving. It seeks to define, analyze and guide decision-making in medicine, as it relates to the moral issues that confront both health care providers and patients [1].

There is perhaps no other area of medicine that is faced with the challenges of ethics like neurosurgery. These challenges are worse for the neurosurgeon practicing in the rural area [2]. The neurosurgeon working in the rural environment is faced with many challenges in addition with other general problems facing those in the cities. Some of this issue includes low manpower,

there is paucity of neurosurgeon and other healthcare workers in the rural setting this poses huge ethical challenges. Other special issues include social, cultural problem, religious belief, poverty, illiteracy and lack of health equipment [2,3]. The neurosurgeon alone has the training and education to operate on the organ that constitutes the locus of human consciousness, emotion and intelligence [4]. With the advancement in technology, there has being increase accuracy in neurosurgical diagnosis due to the relative availability of computerized tomography scan, Magnetic resonance imaging, and equipment for image-guided equipment aiding ease and safe access to the skull and the spine. It is not is infrequent for the neurosurgeon to approach cases with a high risk of death or neurological deficit [5]. The neurosurgeon is also faced with other ethical challenges in management of some cases like congenital anomaly, neurotrauma in the face of absent family relatives, quality of life and end life issues, making decision with profound ethical, spiritual and religious consequences [1,6]. The root of bioethics date back to fifth century BC when Hippocrates codified his musings on how a doctor should behave in the Oath of

Hippocrates. The modern resurgence of bioethics occurred in the late 1940s. The Doctors Trials in Nuremberg from 1946 to 1947 resulted in the formulation of the Nuremberg, outlining a list of requirements for the ethical conduct of human- subject research. This has been largely replaced by the World Medical Federation's Declaration of Helsinki [1].

Principlism

This refers to the four pillar of bioethics Autonomy, non-maleficence, beneficence and justice [1]. Other aspect of bioethics includes dignity and honesty [7]. Autonomy- there is a shift from beneficent paternalism to Autonomy. It is the act and willingness of a patient taking decision in their health care. It forms the core of informed consent. For there to be autonomy, patient should be well informed of the benefit, risks and possible alternatives to management of a given neurosurgical pathology [1]. The acronym PARQA (procedure, alternative, risk, Question, and Advanced life plan) can be used for adequate patient counselling [5].

Non maleficence

Primum, non-noncore (Above all do no harm). Every medical intervention with neurosurgical procedure inclusive has an inherent risk, neurosurgery is even associated with more risk. Arthur Bloom-Field after an iatrogenic tragedy pleaded that every hospital should have a plaque in the physicians and students entrance stating there are some patients whom we cannot help, there are none whom we cannot harm. It is better to communicate non maleficence in term of undue risk of harm or intent to harm [1,8].

Beneficence

It refers to the act of doing well or performing acts of kindness and charity. The intent should be for care or prevention. *Quia non-movere* (don't fix it if it ain't broke) i.e. intervention that are unnecessary, thus ethical yardstick should be that, the benefit should out ways the risk of intervention.

Justice

Justice is described as what is fair or deserved, or what one is entitled to. Distributive justice 'refers to fair, equitable, and appropriate distribution determined by justified norms that structure the terms of social co-operation. The allocation and rationing of health-care resources at all levels and priority setting in the health- care institutions are issues in which the principle of justice plays a role [1]. This is a key component of bioethics and it guide the conscience in the application of knowledge of ethics in the ensuring fairness to all parties concerned in the care Other ethical principles includes- dignity- the neurosurgeon is to treat this patient / client, and relatives with utmost respect. There should as be dignity in every affairs of the neurosurgery, with colleagues and other members of the health team. The neurosurgeon is expected to be honesty to his patient in all deals and to maintain confidentiality.

Ethical challenges

Neurosurgery is the surgical specialty that treats diseases and disorders of the brain and spinal cord [9]. Rural and low-resource societies have diminished capacity to carter for neurosurgical patients due to lack of infrastructure, healthcare investment, and training programs for health care practitioners [2] Irrua demographically is a rural community located in Edo Central Local Government area of Edo State whose people major occupation is subsistence agriculture. It hosts a federal teaching hospital which serves primarily people of Irrua and adjoining rural communities.

Autonomy

Most neurosurgical patients in the rural setting are neurotrauma patient [3], some who might be unconscious, and this affects patient's autonomy, a common scenario at Irrua. The neurosurgeon might act in this scenario based on the local law of the area. The autonomy of these rural patients is also affected by socio- cultural factors, example gender inequality. Some female of legal age might refuse autonomy to themselves and transfers it to the male fold, who might not be acting in the patient's best interest. It might be a source of conflict of interest. Religion is also a major issue, some religious beliefs are against some basic medical principle, and it might hinder consent. For instance, the belief in incarnation might prevent consent to removal of body tissue for diagnosis (premortem) or postmortem. There is also in some instances when individuals transfer his / her right of autonomy to his or her religious leader and spouse or seeks their approval before exercising it. Illiteracy is also a major challenge in the rural settings, this prevents or makes the transfer, flow and dissemination of information difficult. This thus affect patients' autonomy.

Non maleficence

The neurosurgeon in the rural area is faced with challenges like lack, or shortage of well-trained manpower. There is also lack or shortage of up to date neurosurgical equipment. This reduces the safety of neurosurgical procedures when compared with the cities. The neurosurgeon is face with the ethical challenge of to refer or manage, bearing in minder the challenges of transferring this patient like in emergency condition.

Beneficence

Futility can also bring controversy between patient and the neurosurgeon. When a neurosurgery decide not to go ahead with a surgery due to its outcome which the patient or relatives think contrary and vice versa. Another aspect is in the withholding or withdrawing life support. Another challenge is in continuation of treatment in patients with financial constraint or lack law health insurance. This is very common in rural area with low socio-economic status. The resource of the neurosurgeon might not be able to care for all this cases.

Justice

The neurosurgeon in the rural setting is also faced with the challenge of being just in rendering his services. Faced with the issue of shortage [3], he might have to take a decision of continuing service in management for a patient with a poor prognosis and not taking in a new patient with better prognosis and vice versa. Also, due to low manpower might have to decide either to go for further training and leaving his patients or continue patient and at the expense of further training [2].

Conclusion

Neurosurgery practice in the rural setting is associated with many ethical issues. These ethical issues arise as a result of the peculiarities of neurosurgery and also of the rural environment. The neurosurgeon or surgeon working in the rural areas should familiarize himself with these ethical challenges and driveways of taking care of them.

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