Place of autopsy in quality assurance of curative service

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Autopsy is defined as examination of a dead body to learn about the cause of death. Though necropsy is the most accurate term for investigative dissection of a dead body, the term autopsy is used more commonly. Postmortem examination is an alternate expression.

The autopsy has been called as the ultimate medical consultation. The autopsy has a long history that has been influenced by the prevailing medical models of the time. In classical Greek times there was little medical interest in the autopsy since diseases were believed to result from the imbalance of theoretical “humours”, which were not considered to have a simple anatomic basis.

In Anglo-Saxon England the prevailing belief was that disease was due to magical causes and that the power of this magic might still reside in the dead body. Only in the early days of modern medicine was the basis of disease understood to be anatomical and physiological. The first autopsy was performed in the year 1559, when King Henry II suffered a fatal injury and died; eleven days later a French surgeon dissected the body and found a subdural haematoma in the cranial cavity.

In the 1800, before medicine became specialized, clinicians performed autopsies on their own patients who succumbed to the illnesses, and were motivated simply by their own interest in anatomical findings that would verify their clinical diagnosis and evaluate treatment. In the first half of the 20th century the autopsy became the province of pathologists. More recently, the specialities of neonatology and perinatology have benefited from autopsies on infants, neonates and fetuses.

Even though medical and legal systems vary considerably from country to country, generally there are two main types of autopsies: clinical or academic autopsy and medico-legal or forensic autopsy. A medico-legal autopsy is performed only on the instruction of a legal authority responsible for the investigation of deaths. In Sri Lanka such legal authority may be represented by a Magistrate or an Inquirer into Sudden death (ISD). In many jurisdictions, the forensic autopsies are further subdivided into two categories as follows.

- Those held on non-criminal deaths (accidental deaths, suicides, sudden natural deaths or deaths associated with medical treatment errors and industrial deaths).
- The truly forensic autopsies held on suspicious deaths and criminal deaths.

On the other hand, a clinical or pathological autopsy is performed in the case of a death due to natural causes, if the diagnosis made by the treating physician is to be confirmed or refuted. Here the consent of the next of kin is essential, while there is no need for a request from the legal authority.

The objectives of autopsy vary between clinical and forensic autopsy.

The objectives of forensic autopsy are as follows.

- To make a positive identification of the body.
- To determine the cause of death.
- To determine the mode of death and time of death.
- To demonstrate all external and internal abnormalities, deformities and diseases.
- To detect and measure any external or internal injuries.
- To obtain specimens for further investigations such as toxicology, microbiology, virology and histopathology.
- To retain relevant organs and tissues as evidence.
- To obtain photographs and video films as evidence and for teaching purposes.
To provide a full written report of the autopsy findings.

- To offer an expert interpretation of those findings.

- To restore the body to the best possible cosmetic condition before release to the relatives.

The objectives of clinical autopsy are as follows;

- To confirm and clarify clinical diagnosis.

- To evaluate the diagnostic procedures, such as computerized tomography (CT), nuclear magnetic resonance (NMR) and positron emission tomography (PET) scans.

- To evaluate the efficacy and potential adverse effects of new drugs, new surgical procedures, prosthetic devices and genetic engineering.

- To aid in the discovery of new or previously unrecognized diseases (e.g., Legionnaire’s disease, toxic shock syndrome and AIDS).

- To detect new patterns of old diseases (e.g., Tuberculosis and syphilis).

- To provide reassurance and information for surviving family members.

- To provide information for medical and epidemiological research.

- To facilitate investigation of environmental, occupational and lifestyle-related diseases.

- To provide tissues for research and transplantation.

- To teach medical students and health professionals.

- To influence expenditures on medical research, training and disease control.

Decline of the autopsy

The autopsy rates have declined gradually in the recent past. The real reasons are complex. A variety of social, medical and technological factors are responsible for the decline of the autopsy rate. In developed countries the costs of autopsy services are very high. In Sri Lanka people enjoy the free health care service hence the cost for autopsy is borne by the government.

Autopsies are lengthy, time consuming, dirty jobs, often unappreciated and generally thankless. When an unexpected finding is discovered at autopsy, the pathologist has to spend time discussing the findings with the clinicians. Therefore, pathologists are reluctant to perform autopsies. Many clinicians are skeptical of the high levels of discrepancy between clinical and autopsy diagnoses and do not see a major role for autopsy in clinical audit. Some factors considered most influential in a clinician’s decision to request an autopsy include deceased person’s age, attitude of relatives to the death and illness and treatment, and the clinician’s confidence in the clinical diagnosis. New and sophisticated diagnostic techniques have increased confidence in clinical diagnosis, with the result that autopsies are often considered to be outdated and unnecessary. Clinicians may not rely on autopsies due to poor quality autopsy reports given by unmotivated pathologists. Another reason is long turnaround time of final autopsy reports, which can take weeks or months to complete, depending upon the availability of results of the ancillary investigations and the motivation of the pathologist. Finally the attitude of clinicians may be influenced by their personal experience as medical students or house staff and later by the level of interest shown by their colleagues and pathologists.

Attitude of the relatives about autopsy play a major role in decline of the autopsy rate. Most relatives of the deceased have negative attitude about the autopsies. In developed countries, hospital administrators dislike autopsies, since they are responsible for the financial support of the autopsy room, which uses money they could be using on cleanliness, nurses, social workers, medicine and even cafeteria food. Administrators generally prefer to spend their money on living, not on the dead.
Quality assurance and the autopsy

Quality assurance (QA) is a planned and systematic approach to monitoring, assessing and improving the quality of health services on a continuous basis with in the existing resources.  

QA comes in many guises, and may be known as Total Quality management, Continuous Quality Improvement, Clinical Audit or Quality Circles. Quality of care has different meanings to different stakeholders, for example, doctors and patients. All QA systems should encompass three perspectives on quality;  

- Clinical standards  
- Performance management  
- Client satisfaction  

Hence there are usually several elements within the QA system, such as clinical audit, quality control of laboratory services, standards setting and client satisfaction surveys. These components do not have to be introduced simultaneously, but can be introduced as distinct packages.

It has become fashionable for government health policies around the world to include statements on the quality of their health services. Such statements usually reflect a concern for ensuring that health services are both cost effective and responsive to public needs.

While autopsies have the power to audit some aspects of medical care, no one has yet shown interest to use the autopsy as a quality assurance tool. No data have substantiated the widespread belief that autopsies lead to improvement in patient care, which means that the beneficial effect of autopsies on the quality of care remains a matter of faith. Most commonly, autopsy reports reside in the obscurity of the pathology and medical records departments becoming “orphan data”.

Accuracy of diagnosis is not the only important factor in the quality of care but therapy, prognosis, patient satisfaction and outcome are also important. Effectiveness of therapy may be reflected in autopsy findings, but the accuracy of
should review autopsy data and provide recommendations as appropriate. Other measures that could be adopted to enhance the contribution of autopsy to clinical medicine include improving the process of obtaining autopsy consent, standardizing the method for classifying unexpected autopsy findings and integration of autopsy findings into educational feedback systems.

References
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