

Forensic Medical Report is Very Important Part of Every Suspicious Death Case

Siniša Franjić

Faculty of Law, International University of Brcko District, Brcko, Bosnia and Herzegovina

*Corresponding author: Siniša Franjić, Faculty of Law, International University of Brcko District, Brcko, Bosnia and Herzegovina, Europe, Tel: +387-49-49-04-60; E-mail: sinisa.franjic@gmail.com

Abstract

Pathology is a branch of medicine that deals with the study of diseases, or changes in cells, tissues and organs formed during the disease. It studies the structural and functional consequences of the action of harmful factors on cells, tissues, organs or the entire organism of man, animal or plant. In the past, pathology was a descriptive science, based on descriptive morphology. Today, pathology deals with the cause of the disease, the methodology of disease formation, structural changes in cells, tissues and organs, and the functional consequences caused by morphological changes.

Pathology plays an extremely important role in criminal proceedings in which violent death must be determined. Basic knowledge of pathology, particularly in the area of violent damages of health and violent death, thanatology, criminalistics, identification, expert analysis and interpretation of facts, must be applied to clarify any suspicious death. Upon completion of the investigation, forensic experts must write a report in which they will present all the facts related to the specific case. Forensic experts must take part in the criminal proceedings on court to further clarify the facts from the report.

Key words: Pathology; Medicine; Autopsy; Forensics

Introduction

In many ways, the legal system is similar to the medical system^[1]. Both professions require training at the graduate level. Each profession is practiced in its own special setting, using a specialized vocabulary unique to its practitioners and incomprehensible to laymen. Medicine and law can both be divided into two great camps—surgery and internal medicine, and civil and criminal law. Both fields have general practitioners, who provide a broad range of services to all who come, and both fields have specialists, who concentrate in a particular discipline such as neuropathology or tort law and provide services to those individuals who need such specialized consideration. A person requiring a physician's care will enter as a patient at some designated access point, whether by referral to a physician's office or as an emergency admission to a hospital. In like manner, a person in need of an attorney's services will enter as a client at some designated access point within the legal profession, whether by referral to the attorney's office or by court appointment after being arrested for allegedly committing a crime. Some legal clients have simple needs that are cared for as quickly and easily as a mildly sprained ankle, while others have an extremely complicated case that seems to take on a life of its own, much like a malignant tumor. In evaluating a case, both attorneys and physicians must prove or satisfy a list of elements in order to verify a position, whether that position is a diagnosis (in medicine) or a point of view in a dispute (in law).

Pathology

Clinical pathology refers to “laboratory medicine” pathologists who train in this field direct and supervise laboratories where the day-to-day work is performed by laboratory technologists and technicians^[2]. Laboratories cover a wide range of subspecialties including the chemistry laboratory (where electrolytes, cholesterol and lipids, and other substances are measured in the blood or other body fluids such as urine); the hematology laboratory (where “blood counts” are performed), the blood bank (where blood typing and matching ensures that blood transfusions occur safely); and the microbiology laboratory (where various tests are performed to identify infectious organisms such as bacteria, fungi, and viruses, and to work out which antibiotics are the most appropriate to use). Another example is the molecular genetics laboratory, where the identification of genes (DNA) and their products assists with the diagnosing of certain diseases, predic-

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tion of the prognosis (the expected outcome), and treatment.

Forensic Pathology

Forensic pathology is the subspecialty area of pathology that is specifically involved in the investigation of sudden, unexpected, and/or violent deaths^[2]. Thus, the practice of forensic pathology involves applying forensic scientific and pathological techniques to the investigation of lethal episodes. In a more general sense, forensic pathology can also be considered part of the somewhat larger discipline of forensic medicine that applies forensic sciences to medical issues.

The main role for most forensic pathologists is to perform medicolegal autopsies; however, the nature of the practice is very variable depending on jurisdictions. In certain countries, such as Australia, forensic pathologists will only perform autopsies at the direction of the State Coroner, who is a lawyer and a judicial officer. In some jurisdictions in the United States, such as certain county-based medical examiners systems and most coroner systems, the official, legally mandated responsibility for the investigation of sudden deaths is also designated to someone other than the forensic pathologist (such as the local medical examiner or coroner). In such settings, the forensic pathologist serves primarily as the person responsible for performing autopsies when called upon to do so by the local medical examiner (ME) or coroner. In other jurisdictions, including various state, regional, and metropolitan medical examiners systems, the duty of performing the official investigation of such deaths, including death certification, is the responsibility of the forensic pathologist. In certain countries, forensic pathologists will perform autopsies in cases of natural and unnatural deaths, whereas in other jurisdictions forensic pathologists will only be involved in suspicious or violent deaths.

Beginning physicians may not know how to limit their intellectual curiosity and restrict their studies to forensic pathology and its related topic^[3]. Be sure to stick to the topic of forensic pathology. It is tempting to develop a parallel interest in the law; however, the law and forensic pathology have different dimensions, responsibilities, and goals. Some can achieve both law and medical degrees; however, the responsibilities for knowledge and achievement in both fields are only managed well by a few savants. Most students are either scientists or lawyers. However, the American Academy of Forensic Sciences has specialization sections in related fields, including criminalistics, pathology / biology, and psychiatry/behavioral science. Forensic pathology is a young science and is still maturing and developing. Membership in the American Academy of Forensic Sciences will acquaint you with the people responsible for the rapid and extensive expansion that is taking place in all of the forensic sciences. The modern forensic pathologist is challenged by the massive increase in scientific detail and must rely on his knowledge of computer skills and informatics to maintain a leadership position on the expanding margins of the forensic sciences. For physicians, a solid base in the basic medical sciences is necessary.

The prime objective of the forensic pathology residency is to ensure the residents' capacity to perform a good and complete forensic autopsy^[3]. Although most residents have previous autopsy experience, that is not necessarily the circumstance. An evaluation of each resident and his or her capabilities

is necessary. Experience with the usual (classic) types of forensic autopsies to be encountered in a typical community practice is emphasized. The autopsy is repeated in a standard fashion and practiced in an intense manner enabling the distinctive acts of a forensic autopsy to become second nature and habitual, for example, the precise dissection of the coronary artery system. Training has always been localized in morgues with a substantial load of homicide cases, as homicides are a critical ingredient in the forensic case mix. Indeed, the majority of the rotations through the anatomical autopsy services were focused on homicide, with experiences extending from the scene investigation to the final courtroom appearance under oath.

Autopsy

Many medicolegal death investigations rely on information derived from autopsies^[4]. The success of an autopsy in answering questions (e.g, identification, injury causation) depends on a systematic approach by the pathologist. The "complete autopsy" is a series of necessary steps taken by the pathologist, who receives background information about the deceased, performs an external examination and internal dissection, and collects appropriate bodily samples for supplementary testing. The care exercised by the pathologist in this process is reflected in an accurate autopsy report, which addresses the most important question—the cause of death. The pathologist must be aware of potential pitfalls at every step of the postmortem investigation, any of which can pose a risk to the final resolution of a medicolegal investigation.

The term autopsy (Gr. *autopsia* for "seen by oneself") has been defined as "personal observation or examination; seeing with one's own eyes" and "inspection of a dead body which has been opened so as to expose important organs either to ascertain the cause of death, or if this is known, the exact nature and extent of the lesions of the disease, and any other abnormalities present^[5]." Autopsies in some form have been performed since the time of early civilization to determine why a person has died. The autopsy consists of an external examination, followed by internal examination of the organs. The organs are individually weighed and then examined by various dissecting techniques, evaluating not only for disease processes, but for malformation from birth, or deformation through infection, injury, or other conditions. The hospital autopsy and the forensic autopsy are goal-directed medical procedures performed to better understand how a death came about. Although they have similarities, the hospital autopsy and the forensic autopsy also have vast differences.

That the autopsy does not get the respect it deserves is so often repeated as to be trite^[1]. Some clinicians consider that the power of modern-day radiology has replaced the need for autopsies. Studies regularly appear in the medical literature touting that autopsies will uncover a misdiagnosis or important unsuspected diagnosis in as many as 40% of cases autopsied. Unfortunately, even pathologists are in danger of neglecting the autopsy's unequalled power to reveal why a patient has died. In listening to the talk of hospital-based pathologists, it is clear that many, though by no means all, dislike performing autopsies. This disdain for the autopsy by pathologists is unfortunate, for the autopsy is the one procedure that belongs wholly to pathologists. Regrettably, the importance of the autopsy service is one that is overlooked or underrated by many laboratory directors

as well. The truth is that the hospital-based autopsy represents the most all-encompassing opportunity to integrate the findings of anatomic pathology, clinical pathology, and clinical care. Pathologists who deny the importance of autopsy in essence have turned their backs on one of the principal procedures that defined our practice as an independent self-sustaining specialty. Autopsies can also be of critical importance to family members, who may not be in a frame of mind to consider this fact when it is needed. This is where the clinical care team has a duty to step in and discuss the need for an autopsy and answer any questions or dispel any myths family members may have concerning the autopsy. Pathologists should be prepared and even welcome the opportunity to interact with clinical teams and family members when questions concerning the autopsy arise.

Autopsy Report

Equally important as the autopsy itself is the report that the pathologist provides for whoever commissioned the examination^[6]. An autopsy is of little value if the findings and opinion of the forensic pathologist are not communicated in the most lucid and helpful way. The report is an integral part of the procedure and should receive as much attention as any physical procedure in the autopsy room. Unfortunately, some pathologists treat the process of making a report in a somewhat cavalier manner, which diminishes the expertise that they may otherwise possess. The autopsy report is a permanent record of the findings and is especially vital for medico-legal purposes, when every word may be dissected in a court of law months or even years afterwards, and when all recollection of the examination has been driven from the mind of the pathologist by hundreds of subsequent autopsies. In a clinical autopsy in a hospital, the dissection may be demonstrated and discussed at the time with the interested physician. However, the report of a forensic autopsy becomes a legal document of possibly vital significance, and every effort must be made at the time to make it as comprehensive and useful as possible.

Expert Witness

An expert witness has training and experience beyond that of ordinary human experience, and the expert witness is called upon in court to provide the judge and jury the benefit of his special training and experience so that the best possible judgment can be rendered^[7]. An expert witness is allowed to give his opinion in court concerning a matter within his area of expertise. In other words, an expert witness is permitted to use his special training and experience to make his own judgment concerning matters that fall within his area of expertise. Having made his judgment, the expert witness may then pass his personal judgment of the situation on to the judge and jury so that they can use his informed opinion to make their own decision concerning the guilt of the party accused of committing a criminal or civil wrong. That courts should grant such authority to expert witnesses is, in a way, astonishing. In order for an expert witness to function properly, as a teacher to the court, the court assumes that the privilege granted to an expert witness of offering his opinion is balanced by the responsibility of using his special knowledge to assess each question and situation with equanimity.

Courts of law are governed by standards known as rules, sometimes referred to as codes^[8]. These rules articulate the

procedural and legal standards by which the law is to be applied and trials are to be conducted in order to ensure consistency, transparency, and fairness across the legal system. One of the most important series of rules that the expert forensic witness should be familiar with are the Rules of Evidence. Experts are privileged in the legal system in that they are allowed to express their opinion, a privilege that is deliberately denied from ordinary witnesses in order to ensure that only “facts” are presented to the judge and jury, and not personal opinion that may be knowingly (or unknowingly) prejudiced.

Conclusion

Pathology is a branch of medicine that, through theory and in practice, examines diseases, defects, abnormalities and dysfunctions that can affect a healthy organism. As a part of medical practice, pathology is concerned with the study and diagnosis of structural and functional changes in cells, tissues and organs affected by certain types of disease. Modern diagnostic methods and computer-assisted equipment make it greatly easier to identify causes and recognize the disease. Forensic pathology is a subdiscipline of pathology that deals with the causes of death. Forensic scientists are often involved in solving the most serious criminal offenses. Forensic scientists collect, preserve and analyze the evidence gathered during the investigation.

Autopsy begins with an exterior examination of the body and the identification of signs of death, and continues with the examination of organs and organic systems starting with the organs of the chest cavity. After the chest cavity, must be examined the cervical organs, the organs of the abdominal cavity and the small pelvis, and at the end a small and large brain. During autopsy, tissue samples for histological examination are taken, and samples of tissue, secretion, excretion, blood and fluid for bacteriological, biochemical, toxicological and molecular tests may be taken.

After autopsy, a written autopsy report which must be containing all relevant clinical and laboratory data on death and detailed records of autopsy which must be written according to the usual autopsy sequence, then histological analysis of tissue samples taken at section and a compiled list of patoanatomic and pathohistological diagnosis aligned with the pathogenic sequence with a specially characterized primary (major) disease and direct cause of death.

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