Ethics in histopathology laboratory

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Abstract

Ethics are involved in almost all the phases of comprehensive examination of the patient. Four general principles in medical ethics are also applicable in the field of histopathology, however their implementation poses a great challenge. A pathologist bears the responsibility of patient, colleagues, profession, and society. Provision of a safe, scientifically accurate and complete diagnosis in a reasonable frame of time is the prime ethical duty of a histopathologist. However, a harmonized diagnosis is at times difficult to be produced acceptable for all the stakeholders. The inherent beauty of histopathology i.e. intra-observer and inter-observer variations in comprehending the language of cells may result in a deviated diagnosis at times especially when the second opinion is to be sought as a trend of fashion. This pathologist-pathologist interaction and also the proprietorship of tissue blocks also impart an ethical threat. Legitimating for carrying out additional stains after the diagnosis has been reported and using tissue blocks for research purposes might have some ethical issues involved in which the histopathologists need to unanimously sort out at their earliest.

Keywords: Ethics, histopathology, safe diagnosis.

Introduction

The principles of doing "good" and not doing "harm" are the essence of every code of medical ethics. In recent times, as an aid to decision-making and as a starting point for discussion on medical ethics, four principles have been generally agreed as fundamental. These are:

- *Autonomy*- the right of patients to make decisions on their behalf.
- *Beneficence* - the duty or obligation to act in the best interests of the patient.
- *Non-maleficence* - the duty or obligation to avoid harm to the patient.
- *Justice* embodies concepts of fairness and giving what is rightfully due[1].

At the same time, medical ethics aim to protect patients from abuse that can occur from a person in a position of power. The four general principles in medical ethics are also applicable in the field of Pathology but they are clumsy[2]. The ethical standards of those working in medical laboratories and forensic medical institutions are derived from medical ethics and other codes but incorporate the same principles[1]. The most essential purpose is to ensure that medical profession deserves the trust of the patients.

In the present era of "hi-tech" medicine, upto 70% of medical diagnoses rely on pathology laboratory analyses[3]. Although sustaining high ethical standards remain crucial in both clinical and laboratory practice, yet ethical dilemmas are faced daily by laboratory physicians and ethics do not receive the deserved attention [4].

The comprehensive examination of a patient is divisible into pre-analytic, analytic and post-analytic phases:
The pre analytical phase includes:

1. Deciding to organize the examination,
2. Informing the patient and gaining consent,
3. Ordering the examination and preparing the patient, and
4. Collecting the specimen.

The analytic phase includes:

5. Preparing,
6. Storing the sample,
7. Analyzing the results, and
8. Verifying the results.

The post-analytic stage includes:

9. Reporting the results,
10. Interpreting the results,
11. Informing the results to patients or relatives, and
12. Applying the results to the patient care [5].

An institutional laboratory attached with a teaching hospital is at least involved in some of the pre-analytic phase (sub-phases 2, 3 & 4), in almost all the sub-phases of analytic phase, and most of the sub-phases of post-analytic phase (i.e. 9, 10, 11 & 12 specifically in the clinic-pathological conferences and morbidity and mortality meetings). Although, smaller in number but higher in magnitude, the ethical problems were mentioned in almost every phase and sub-phase of comprehensive examination [5], the problems became magnified while considering the rights of deceased and patients[6, 7].

There are three main groups to whom pathologists owe their responsibilities; the p*atients* to whom the pathologists are accountable for the quality and integrity of the service they provide, the *Colleagues and the profession* to whom the pathologist should strive to uphold the dignity and respect of their profession and maintain a reputation of honesty, integrity and reliability, and the *Society* for which pathologist have a responsibility to contribute for its general well-being[2].

Chinoy[8] explained in her article that following issues should be considered as regards to ethics in histopathology laboratory:

- Safe, scientifically accurate and complete histo-pathological diagnosis in a reasonable time frame.
- Propriety of tissue samples and blocks.
- Medical audits specifically aimed at the pathologist.
- The pathologist-pathologist relationship.

Serafimov used the term of shared-decision making for patients instead of medical audits specifically aimed at the pathologist[2]. How does a safe diagnosis come under the preview of discussion on ethics? This is because even the most experienced pathologist is human, and cannot claim 100% accuracy for every diagnosis. Histopathology is basically learning the language of cells, interpreting shapes, sizes and architectural patterns of tissues within a given specific clinical context[2], an issue poorly understood by the clinicians. A difficult case is similar to interpreting a semi abstract work of art. Even a different diagnosis may be encountered if the case is reviewed by the same pathologist sometimes after. This inter-observer and intra-observer variation, which is also considered as the beauty of histopathology, is best explained by Elsheikh et al (2008) in their article on inter-observer and intra-observer variations amongst experts in the diagnosis of thyroid follicular lesion with borderline nuclear features of papillary carcinoma[9]. However, every case in histopathology is not that much challenging and in almost 95% of cases a harmonized diagnosis can be established. Problems are mostly encountered in borderline cases, rare diseases, poorly processed samples or in the absence of complete clinical data[2]. I personally know a renowned histopathologist who, in the case of non-provision of history, gives the remarks of “no history no diagnosis”. Safe diagnosis is not only beneficial for the patients, but it should also ensure the safety of histopathologist as well. Committed pathologists observing this trend could end up as practicing ‘defensive pathology’, unwilling to commit themselves freely in their histopathology reports[5].

Although there is no direct contact with patients, the “faceless” laboratory physician’s first and foremost duty is to act in the interest of the “faceless” patient who is often “just a number.” The laboratory physician does have intimate knowledge of at least a part of the patient-the specimen[10] and an unusual three way contact is made between clinician, physician and the pathologist[4].

Obviously the laboratory physician may have many interests, including personal, intellectual, financial and professional, that can sometimes clash with patients' interests but concerns for the interests of patients should always prevail over other interest[11].
The histopathologist should have the right to process diseased tissue removed during surgery in any way to obtain diagnostic information for future therapeutic decisions. However, the tissue remains the patients' property. The histopathological report is a confidential document which should be relayed only to the clinicians concerned and to the patients. This can become a controversial issue in today's' society where patients go "shopping" for doctor's opinion. They may wish to carry the tissue sample to several different histopathologists. Nevertheless, the pathologist cannot deny the patient the right to tissue removed for diagnostic purposes, or for information based on their examination[2]. On the other hand, departments in large institutions may argue that material obtained for diagnostic purposes should be stored and preserved for future research. This should be done only with the permission of the patient. Obviously a majority of the patients will agree to such storage, if their pathologists take the time to explain the need for such researches[4].

Legitimacy for carrying out tests for which consent has not been obtained, or in other way to use stored tissue samples (including their export) without the informed consent of their owners, is also questioned by some authors[4]. This is a common practice observed at histopathology laboratory to retrieve the tissue blocks, review the diagnoses, make fresh slides and use additional sometimes newer stains. Are ethics involved in the entire scenario?

Second opinion of histopathology cases is not only famous amongst the patients but many physicians do feel comfortable while doing so. However, in this regard, the first pathologist should not be kept in dark, and his/her assistance should be made mandatory to facilitate the process. Histopathologists have a right to their own opinions. However, divergent or contradictory diagnoses can create considerable apprehension for both the patients and the treating clinicians. Sometimes, the matter cannot be resolved without a third or even a fourth opinion. In such cases, clinicians sometimes opt that report which best matches their own clinical and/or provisional diagnosis[5]. The second, third or fourth pathologist should refrain from making any comments that should be considered as acceptance of the criticism[12].

Conclusion

Although histopathology laboratory is not in direct contact with the patient, the ethics needs to be followed there as well. There are many more ethical issues that may arise in the setting of such laboratories. It is the highest time for histopathologists to sit together and determine their own guidelines to resolve the ethical issues.

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