Diagnostic error and ethical issues; moral responsibility of an oral pathologist

Pushparaja Shetty

Department of Oral Pathology, AB Shetty Dental College, Nitte University, Mangalore, Karnataka, India

Abstract

Accurate as well as in time diagnosis is vital for the success of any treatment. A considerable diagnostic error rate in surgical pathology and cytopathology ranges from 0.25 to 6% in published literature. Histopathology is basically determining the linguistic process of cells, interpreting shapes, sizes and architectural form of tissues within a given specific clinical setting. In the field of oral and maxillofacial pathology often encountered difficulties are in the diagnosis of dysplasia. Certain guidelines to overpower this problem and ethical issues discussed in the earlier literature are given in this review with oral pathologist’s perspective. The pathologist should strive to uphold the dignity and respect of their and maintain a reputation of honesty integrity and reliability.

Keywords: Diagnostic errors, diagnostic discrepancy, ethical issues

Introduction

Histopathological diagnosis is a vital link in patient management. Accurate as well as in time diagnosis is vital for the success of any treatment. Many times clinicians fail to predict the future of a particular patient or class of the disease as the human physical structure does not accept the linear laws of deterministic predictability.

The largest number of treatment failures is related to either wrong or delay in diagnosis. A considerable diagnostic error rate in surgical pathology and cytopathology ranges from 0.25 to 6% in published literature.[1,2]

Histopathology is basically learning the language of cells, interpreting shapes, sizes and architectural pattern of tissues within a given specific clinical context. Interobserver variations are often encountered in this field. Even the most experienced pathologist may have difficulty in claiming 100% accuracy.[3,4]

Contributing Factors and Types in Diagnostic Error

A pathologic diagnostic error or discrepancy is defined as “when one pathologist renders a diagnosis and another pathologist looks at the same materials and renders a different opinion or diagnosis.”[3] The diagnostic discrepancies are those discrepancies that result in prospective or would have resulted in a retrospective review in alteration of treatment and or prognosis. Minor discrepancies are those that have diagnostic disagreement, but do not lead to treatment alterations. Consequence of diagnostic errors may lead to an unnecessary surgery or organ removal, chemotherapy or early death due to therapeutic complication as a result of over diagnosis. An under diagnosis may lead to delay in appropriate treatment and sometimes disease may progress so rapidly and leading to increase in mortality and morbidity.

Diagnostic discrepancy is usually pre-analytical, analytical post-analytical errors.[5] Various studies indicate that the majority of errors in the laboratories relates to pre-analytical phase, incomplete clinical or lab investigative details, labeling errors, non-representative or improper handling during biopsy procedures. The standard protocol of procedures in all the steps and may help overcome this. Good quality as well as well-maintained equipments are mandatory. Computerization and bar coding may help in avoiding this errors.[5-7]

Less common, but most significant errors are analytical errors this includes under diagnosis, over diagnosis, wrong interpretations of the disease, missing or error in the diagnostic information in the report. Post analytical errors are involved during report generation with the transcription error and also delay and mistake in dispatching the report.
Contributing factors for the discrepancy in diagnosis is mainly because of paucity of hard diagnostic criteria for many conditions. Variations in individual visual perception, decision making and improper handling of the tissues during biopsy or during processing.

Despite these realities, the need of the time is zero error with 100% accuracy. More than 80% of the cases are usually straightforward histopathology and may not have diagnostic dilemma. Another few are either borderline case, rare diseases.

In the field of oral and maxillofacial pathology often encountered difficulties are in the diagnosis of dysplasia. Studies suggest that accurate, reproducible agreement among experienced oral pathologist diagnosing oral epithelial dysplasia is difficult to achieve.[6] Many times difficulty in identifying metastatic tumor to the jaw from another part of the body, due to lack of experience in this field. Oral pathologist often has a dilemma in diagnosing the infected odontogenic cyst, difficulty in differentiating oral lichen planus from lichenoid dysplasia, fibrous dysplasia from ossifying fibroma. Many times, often indecisive to use terminology such as keratocystic odontogenic tumor versus odontogenic keratocyst, unicystic ameloblastoma versus ameloblastoma in situ etc.

Guidelines to Prevent Diagnostic Errors

The standard protocol of laboratory operations, review opinion or second opinion in difficult cases,[6] intra and inter-departmental consultation[6] and also selection of right investigation for further evaluation will help control the analytical errors.

The significant error can be prevented if pathologist properly evaluate whether clinical history, patient age, lesion location, pure appearance and radiograph fit with the diagnosis he is making.

Certain other guidelines suggested in the earlier literature for the maintenance of quality and in ethical praise histopathology include random review of reported events, blind review, intra and inter departmental audit, expert consultation, and telepathology.[4,10,11]

Reports involving more than one individual should be carefully worded, and the ultimate responsibility for the final decision must remain with the pathologist who signs the report.

The patient has the right for the second opinion and is the owner of the tissue and tissue block. The pathologist cannot deny a patient the right to tissues or the information based on their testing. Pathology department or lab is considered as the legal care taker of the tissue.

Use of tissues for research purpose should be done solely with the permission of the patient.[3,4,11]

All the pathology report should be viewed as confidential information, no matter how they are conducted. The pathologist must make sure that the reports they send out are received by the person who has moral, social or legal right to receive the information.[12]

Another important issue in pathology is a relationship between the two pathologists and between pathologist and clinicians and it need to be handled with care and honesty. If a clinician sends a case for the second opinion and if the diagnosis differs it is suggested that the reviewer must communicate to the first pathologist and need to discuss the case in details. Histopathologist have the right to their own opinion, but sometimes contradictory diagnosis can create apprehension for both patient and treating clinicians and his judgment becomes crucial.

The communication between the pathologist and clinician should be free formally as well as informally through request forms at committees and interdepartmental meetings. It is the duty of pathologist to keep informed to the clinicians every decision and obtain his consent.[34]

Medicolegal problems experienced by a histopathologist differ from that other clinician as they have little direct patient contact on a routine basis.

Conclusion

The pathologist should strive to uphold the dignity and respect of their and maintain a reputation of honesty integrity and reliability. The pathologist needs to apply general principle of error reduction to enhance the overall quality of surgical pathology. The breach of duty in performing and reporting results of a given specimen for investigation by a pathologist amount to negligence and have a clear professional obligation to proper diagnosis or appropriately refer.

References