Introduction

In the practice of modern medicine it is imperative that an accurate diagnosis be obtained. A biopsy, which is defined as the removal of tissue from a living body for diagnostic study, is the gold standard and an integral part of the diagnostic process. It is the key tool in establishing a definitive diagnosis through which treatment is guided. It is a critical component of evidence based medicine.

Biopsies may be either excisional or incisional. Exfoliative cytology, fine needle aspiration and cytobrush technique are adjunctive procedures that may not produce a definitive diagnosis and therefore should not be substituted when a biopsy is indicated.

An excisional biopsy is a surgical procedure that removes an entire clinically abnormal lesion for histologic examination. It may represent the only treatment rendered or be utilized for complete removal of a previously biopsied lesion. In contrast, an incisional biopsy is a surgical procedure in which only a representative area or areas of a lesion are submitted for microscopic examination. When submitting incisional biopsies the surgeon needs to ensure that the biopsy material is representative of the disease process or lesion. This is accomplished by ensuring that sufficient tissue is submitted and including a margin of clinically normal tissue. Submission of multiple specimens may be necessary for an extensive lesion. Clinical judgment, along with the size and location of the lesion or lesions, usually determines whether an excisional or incisional biopsy is appropriate.

When to submit or not to submit

In dentistry submission of oral tissue for microscopic examination is the standard of patient care. Performing tissue biopsies are well within the scope of a general dentist. Regrettably this is not stressed or practiced within the undergraduate dental curriculum. Whether the general dentist or a specialist performs the biopsy, the most important step is deciding when a biopsy is indicated. Failure to diagnose is one of the leading causes of legal action against dentists.

The medical or dental practitioner ultimately decides whether or not to perform a biopsy, however the submission of tissue for examination is not discretionary. In institutions or hospitals tissue submission policies are determined and promulgated by the medical staff, not the surgeon or pathologist. The laboratory director (who is usually a pathologist) should and must be consulted by the medical staff committee in the development of these policies.

Accredited facilities must have a clearly written policy for all surgical specimens including those exempted from submission. The policy must follow The Joint Commission standards, College of American Pathologist (CAP) and BUMED guidelines. Although CAP guidelines are neither policy nor mandatory requirements for specimen submission, they are in line with the general standards of care. The Joint Commission accredits and certifies over 20,000 healthcare institutions and organizations in the United States. Its goal is to continuously improve healthcare for the public by ensuring facilities provide the safest, most effective and highest quality of care. It has set forth standards for submission of specimens which includes exceptions to submission and samples requiring gross examination only. In the MHS, facilities, commands or regions will have individual policies for tissue submission which include a list of material exempt from submission for that treatment facility. For example, the policy may exempt removed reconstructive hardware from laboratory submission. These exemptions should not compromise the quality of care to the patient and an alternative procedure of documenting the removal and disposal of such specimens is required within the policy.

How to submit tissue

In dentistry all tissue removed from the oral cavity and head and neck should be submitted for pathologic evaluation unless it is clearly stated to be exempt from submission by institutional policy. Specimen containers with 10% buffered formalin into which the specimen is placed for fixation and transportation are provided by the laboratory. Formalin is the standard medium for tissue fixation unless a special procedure, such as immunofluorescence, is required. The specimen must be submitted along with...
clinical history and patient information, to include: patient demographic data, location of the lesion, clinical appearance and any relevant clinical and/or radiographic images. When multiple specimens from separate sites are submitted, it is imperative that they are submitted with a recognizable identifier, such as a suture or placed in separate containers which are clearly labeled.

Conclusion

All providers should be familiar with and adhere to their individual institutional policies for tissue submission. These policies are based on BUMED Instructions as well as the standards and guidelines set forth by the Joint Commission and CAP. Adherence to these policies is necessary to meet the standard of care and provide the highest quality healthcare to our patients. There is never legitimate reason to discard patient tissue obtained from a pathologic process.

References:


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