

## Handling of Biopsy Specimens - Useful Clinical Tips

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### ABSTRACT:

Good communication between a pathologist and clinician is mandatory for optimal patient care. The present paper puts emphasis on proper handling of biopsy/resected specimens. It also gives useful clinical tips to surgeons and pathologists, in handling the tissue specimens.

*Key words: Pathologist, Clinician, Good rapport*

### INTRODUCTION:

Considering the human body, a rich and diverse variety of tissues and organs seem to converge in a compact area, the Head and Neck. As a result, wide array of pathologies are seen in this anatomic region.<sup>1</sup>

A good rapport between a pathologist and clinician is a must for optimal patient care. It is applicable to surgical pathology of head and neck region where the surgical specimens are anatomically complicated, comprising many different structures and tissues confined within a limited volume.<sup>2</sup>

### OBJECTIVE:

The present paper mainly focuses on the way the tissue is handled after its removal, for the diagnostic purposes and this paper gives useful clinical tips to surgeons as well as pathologists, in handling the resected specimens. Handling of surgical specimens is given due importance to get maximum information that enables the surgeon to give patients optimal treatment.

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Different biopsy techniques and surgical specimens have been very well explained in various pathology text books.<sup>2-5</sup>

### USEFUL TIPS FOR HANDLING BIOPSY / RESECTED SPECIMENS:

The following general principles are applicable to biopsies in the oral cavity and resection of the jaw bones.

- The biopsy (incisional) should be made from the most representative area based on clinical appearance.
- The specimen (if small) sutured to the suture pack cardboard will prevent curling up of the tissue in the fixative.
- The tissue sample after biopsy should not be crushed between forceps.
- Resected specimens should be adequately tagged at reference margins. A diagrammatic representation accompanying the specimen is desirable.<sup>3</sup>
- *Without delay, the specimen should be placed in a suitable fixative (10% neutral buffered formalin) to avoid artifacts.*

- For cystic specimens, a small wooden pick can be used to maintain patency of the lumen (also, to avoid curling up of tissue) during tissue processing, Figure 1. (a tip to young Oral Pathologists)
- For any biopsy specimen, it is advised to identify the anatomical components that are part of it. For example,
  - The side (right or left) from where it comes
  - Size of the specimen
  - Describe mucosal changes (if any)
- For resected specimens with a diagnosis of cancer, it is desirable to mention the anatomical structures that form the surgical margins and the natural surfaces of the specimen. The excisional biopsy specimens if not too large, can be submitted pinned on corkboard (Figure 2); accurate sampling of the margins is possible.
- A water-cooled diamond grinding blade is recommended for maxillofacial specimens containing bone and teeth (Figure 3). Advantage of its use is, a good cut surface showing tumor dimensions and spread can be seen (without separating the soft tissues from either bone or cartilage).
- Above all these, a requisition form for processing of the biopsy specimen, with all the relevant details about that case should accompany the tissue sample.

#### CONCLUSION:

Being specialists in our fields, it is our duty to take care of things which look small, but when practiced really gives out great results.

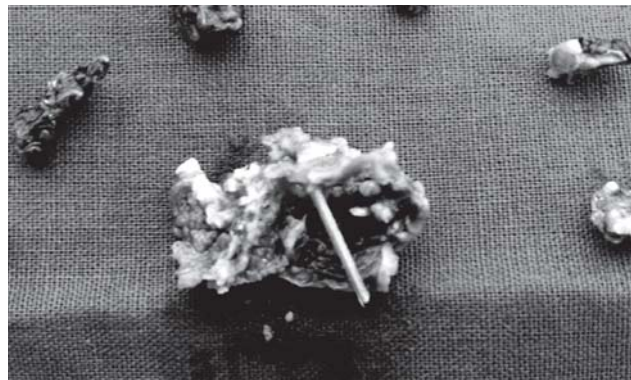
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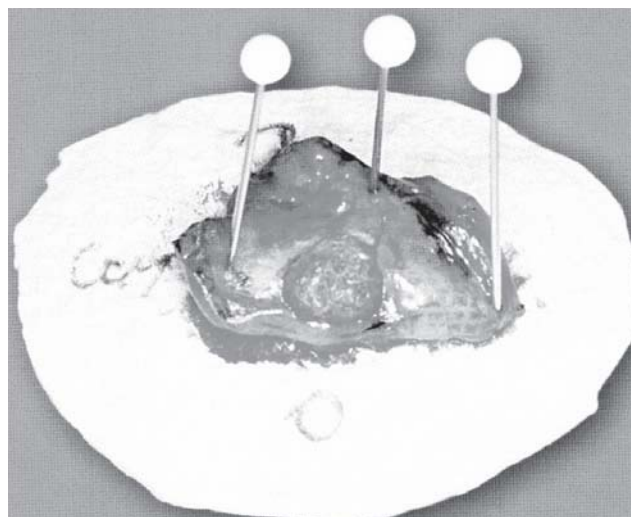
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**FIGURE 1:** A small wooden pick placed in a cystic specimen to maintain patency of the lumen during tissue processing



**FIGURE 2:** Macroscopic appearance of excisional biopsy (cancer in the anterior floor of the mouth) pinned on a corkboard. [Reference No 2, Page 44 ]



**FIGURE 3:** A specimen containing bone and teeth, held against water-cooled diamond grinding blade to assess tumor dimensions and spread [Reference No 2, Page 2].