

capsules

THE CURRENT LITERATURE IN BRIEF

Biopsy Tips

Obtaining biopsies not only helps with diagnosis of a tumor, it aids in determining the type and extent of treatment that will be necessary. Enough neoplastic tissue needs to be obtained to establish the diagnosis. Masses are not homogenous, and over 50% may be reactive or necrotic tissue. Therefore, it is best to take several samples from one mass. Biopsies that contain only ulcerated, necrotic, or inflamed tissue should be avoided. Electrocautery should not be used to obtain small biopsies because it deforms the cellular architecture. A sufficient amount of fixative should be used. Tissues should be fixed in 10% buffered neutral formalin with one part tissue to 10 parts fixative. Thick tissues (> 1 cm) will not fix thoroughly. Large masses should be cut to allow fixation. After fixation, the sample can be mailed with a 1:1 ratio of fixative. Cytology samples should not be shipped in the same container as formalin because the fumes will affect the staining quality of the slides. It is important to send a complete and detailed history with the biopsy.

The three most commonly used methods of obtaining biopsies are needle-punch biopsy, incisional biopsy, and excisional biopsy. Needle-punch biopsies obtain tissue that is about the size of the lead in a pencil and 1 to 1.5 cm in length. Even though the sample is small, it can usually show the structural relationship of the tissue, and tumor cells can be seen. This type of biopsy is fast, safe, easy, and inexpensive. Incisional biopsies are preferred for ulcerated and necrotic lesions. Excisional biopsies are done when treatment would not be significantly altered by knowledge of tumor type.

If the biopsy results do not correlate with the clinical case, call the pathologist and discuss. This will be helpful for both parties. It may mean taking another sample, using special stains for possible tumor types, and obtaining a second opinion. Biopsies that are carefully performed, submitted, and interpreted may be the most important step in management and prognosis for the cancer patient. Taking a biopsy out of medical curiosity is inappropriate, and biopsies should not be an owner-elected option.

Biopsy principles. Withrow SJ. AAHA PROCEEDINGS, 2003, Vol. 1, pp 341-342.