



OPINION ARTICLE



Note on Different Types of Biopsy

Feign Keto*

Department of Histology, The University of Tokyo, Tokyo, Japan

ARTICLE HISTORY

Received: 28-Apr-2022, Manuscript No. EJMJIH-22-62791;

Editor assigned: 05-May-2022, PreQC No. EJMJIH-22-62791 (PQ);

Reviewed: 23-May-2022, QC No. EJMJIH-22-62791;

Revised: 01-Jun-2022, Manuscript No. EJMJIH-22-62791 (R);

Published: 06-Jun-2022

Description

A biopsy is a procedure in which a sample of tissue or cells from your body is removed and analysed in a laboratory. You may need a biopsy if you have certain signs and symptoms or if your doctor has detected an area of concern. A biopsy can determine whether you have cancer or another disease.

Imaging tests like CT scans and MRIs can assist detect lumps or abnormal tissue, but they can't distinguish the difference between cancerous and non-cancerous cells on their own. The only way to diagnose most malignancies is to take a biopsy and collect cells for further testing.

The numerous types of biopsy methods used to make a cancer diagnosis are described here:

Needle biopsy

The term "needle biopsy" refers to the procedure of putting a specific needle into the skin to harvest cells from a questionable location. This is referred to as a percutaneous tissue biopsy by doctors.

A needle biopsy is frequently performed in worrisome regions that your doctor may feel through your skin, such as breast lumps or swollen lymph nodes. Needle biopsy can be used to collect cells from a location that can't be felt through the skin when paired with an imaging method.

Endoscopic biopsy

Endoscopic biopsy is a procedure that involves the use. A thin, flexible tube (endoscope) with a light on the end is used by your health care provider to observe structures inside your body during endoscopy. A small sample of tissue is taken and studied using special tools that are passed through the tube.

The sort of endoscopic biopsy you receive is determined by the location of the suspicious spot. The endoscope

can be placed into your mouth, rectum, urinary tract, or skin through a small incision. Before the procedure, you may be given a sedative or anaesthesia, depending on the type of endoscopic biopsy you have.

Skin biopsy

A skin biopsy is a procedure that extracts cells from the skin's surface. The most common way to identify skin diseases, such as melanoma and other malignancies, is through a skin biopsy. The sort of skin biopsy you get depends on the type of cancer you think you have and the size of the suspicious cells.

Bone marrow biopsy

A bone marrow biopsy may be recommended depending on the findings of your blood tests or if your doctor fears malignancy is affecting your bone marrow. The spongy layer inside some of your larger bones where blood cells are formed is called bone marrow. A sample of bone marrow can be tested to see what's causing your blood problem.

Surgical biopsy

A surgeon makes an incision in your skin to access the suspicious area of cells during a surgical biopsy. Surgery to remove a breast lump for a possible breast cancer diagnosis and surgery to remove a lymph node for a possible lymphoma diagnosis are two examples of surgical biopsy procedures. A surgical biopsy procedure can be performed to remove a portion of a questionable cell region. Alternatively, a surgical biopsy may be used to remove all of the cells.

A tissue sample is obtained by your health care provider and delivered to a laboratory for analysis. Chemical treatment or freezing and slicing the sample into very small bits are two options. The sections are mounted on glass slides and tinted to improve contrast before being examined under a microscope. The biopsy results aid your doctor in determining whether or not the cells are

malignant. If the cells are cancerous, the results can inform your doctor where the cancer started and what kind of cancer you have. A biopsy can also assist your doctor figures out how aggressive your cancer is and what grade it is. The grade is determined by how cancer cells appear under a microscope and is frequently stated as a number on a range of 1 to 4.

Tumours of low grade (grade 1) are the least aggressive, whereas cancers of high grade (grade 4) are the most aggressive. This information could be useful in determining therapy alternatives. Other cancer-cell-specific assays can also aid in therapy decision-making.