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Cytopathology-2015: Thyroid lesions fine needle aspiration cytology: Comprehensive cytomorphology and update reporting - Ahmed El-Habashi - Cairo University, Egypt.

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Thyroid lesions fine needle aspiration cytology: FNAC complete cytomorphology and update reports are recommended as a routine investigation in the treatment of solitary cold thyroid nodule. The conditions for an accurate diagnosis are adequate material, optimal smear, appropriate staining and experience. The accuracy of FNAC in thyroid lesions is greater than 90%, with a sensitivity of the diagnosis of malignancy of almost 100%, a false negative of approximately 10% and a false positive of 1 to 3%. The author of this workshop will demonstrate the cytomorphologic characteristics of the majority of diagnostic entities in FNA thyroid lesions as well as an emphasis on potential diagnostic pitfalls. The updated Bethesda System (TBS) for FNA thyroid lesion cytology will be discussed with its clinical significance and management guidelines. The end of the conference will include case presentations to ensure that the audience will meet the core ILO objectives of the workshop.

A fine needle aspiration biopsy of the thyroid is a procedure that removes a small sample of tissue from your thyroid gland. The cells are removed using a small hollow needle. The trial is referred to the laboratory for analysis. The thyroid gland is in the anterior of your neck. A thyroid fine needle goal biopsy is a procedure that eliminates a small sample of tissue from your thyroid gland. Cells are removed through a small, hollow needle. The sample is referred to the lab for investigation.

A fine needle aspiration biopsy (FNA) is a simple procedure that involves passing a fine needle through the skin to remove fluid or tissue from a cyst or solid mass, such as the shows the picture below. The cellular material sample taken during an FNA is then sent to a pathology laboratory for analysis. Fine needle aspiration biopsies are often performed when a suspicious nodule is detected, such as a breast nodule or enlarged lymph node, or if an abnormality is detected during an imaging test such as an x-ray, an ultrasound or mammogram. Fine needle aspiration is a relatively non-invasive method, less painful and faster than other tissue sampling methods such as surgical biopsy. A cyst aspiration can also be performed with an FNA, where the fluid is drained from a cyst without the need for analysis. Performing a Fine Needle Aspiration Biopsy (FNA)

You can see an example of the appearance of the needle on the right image. Inserting the needle would be similar to the feeling of a blood test. A vacuum or negative pressure is created in the needle and with a movement of entry and exit of the needle, the sample is taken. Several needle inserts may be necessary to ensure that the sample is adequate. Once the test is complete, a small bandage will be placed on the site and you can continue your normal activities. There are usually no complications with this procedure, although you may feel some tenderness or bruising at the needle insertion site. If you experience bleeding, swelling, fever or pain that is not relieved by paracetamol, contact your doctor immediately. It is not recommended to use aspirin to relive the pain as this can worsen bruising. Results of a Fine Needle Aspiration Biopsy (FNA)

The samples taken are examined by a pathologist under a microscope. An exhaustive report will then be provided approximately the type of cells that were seen, including any suggestion that the cells might be cancer. It is vital to remember that having a lump or mass does not essentially mean that it is cancerous; many fine needle aspiration biopsies reveal that suspicious lumps or masses are benign (non-cancerous) or cysts. Articulate trials may be described as one of the following types:

Inadequate/insufficient: The sample reserved was not satisfactory to exclude or confirm a diagnosis.

This work is partly presented at International Conference on Cytopathology, August 31-September 02, 2015 held at Toronto, Canada.

Benign: There are no cancer cells present. The size or growth is under control and has not spread to other areas of the body.

Atypical / undetermined or suspected of malignancy: the results are not clear. Some cells appear abnormal but are not definitely cancerous. A surgical biopsy may be necessary to adequately sample the cells.

Malignant: The cells are cancerous, uncontrolled and have the potential or have spread to other parts of the body. Effectiveness of a Fine Needle Aspiration Biopsy

A fine needle biopsy is an effective tool for assessing and diagnosing suspicious masses or masses. Prompt diagnosis can mean that the cancer is detected early, offering more treatment options, or that benign bumps are diagnosed without the need for surgery. It is non-invasive and uncomfortable compared to a surgical biopsy which requires general anesthesia, involves pain and the possibility of infection or scarring. Fine needle aspiration biopsies require expertise to perform and interpret. To confirm a precise result, it is important that the general practitioner, radiologist, surgeon, pathologist or oncologist performing your procedure have experience with fine needle aspiration biopsy.

Benefits and Risks of a Fine Needle Aspiration Biopsy:

A fine needle biopsy is a quick and effective test for determining the condition of suspect tissue. Compared to a surgical biopsy, the fine needle aspiration biopsy carries little risk of scarring, infection or pain and has a considerably shorter recovery time. It is also extremely useful in the diagnosis and treatment of cysts. The risks of fine needle aspiration biopsy include the possibility that cancer cells will be dragged into unaffected tissue when the needle is removed, but this is rare when the test is performed by qualified practitioners. Because an FNA biopsy can only sample a small number of cells in a mass or mass, there is a risk that abnormal cells are missed and not detected. This may mean that a larger sample needs to be taken, for example by cored needle biopsy.

Biography:

Ahmed El-Habashi has completed his MD, PhD from Cairo University and Tulane University in a channel system scholarship program. He got Post-doctoral fellowship at Groningen University Hospital, The Netherlands at 1998. He is the past-director of pathology sector, National Cancer Institute, Cairo University and now he is working in the capacity of Professor of Pathology. He became the International Board of Cytopathology since International Academy of Cytopathology at 2007. He is an international cytology speaker and he conducted many Cytopathology workshops in Egypt and Arab countries aiming to improve the cytology practice and profession. He has published more than 35 papers in reputed journals and has been serving as a reviewer for more than three reputed Journals.

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