досліджували методом імуноферментного аналізу на аналізаторі "StatFax 303 Plus". Рівень СРБ визначали напівкількісним методом латекс-аглютинації.

В групі контролю рівень ІЛ-2 коливався в межах (75,46 ± 5,26) пг/л, СРБ – (1,61 ± 0,17) мг/л. У пацієнтів з активним саркоїдозом легень до початку лікування концентрація ІЛ-2 у бронхоальвеолярному вмісті становила (196,72 ± 8,13) пг/л, СРБ – (28,34 ± 2,45) мг/л. При повторному обстеженні через 3 місяці лікування пацієнтів було поділено на дві групи: успіх терапії (група I) та невдача лікування (група II). В I групі (n = 47) відмічалось достовірне зниження цих показників: СРБ – (10,27 ± 1,18) мг/л, ІЛ-2 – (94,57 ± 4,23) пг/л. У II групі зберігались високі концентрації маркерів запалення: ІЛ-2 – (208,48 ± 10,12) пг/л, СРБ – (31,86 ± 2,64) пг/л.

Виявлення закономірностей даних порушень на молекулярному рівні міжклітинної взаємодії при саркоїдозі легень дає змогу визначати дієвість і достатність призначеної терапії шляхом персоналізованої для кожного пацієнта оцінки активності запального процесу.

CT-IMAGE GUIDED TRANSTHORACIC NEEDLE BIOPSY IN THE DIAGNOSIS OF THE THORACIC TUMOURS

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Premise of the study. We are assessing the importance of CT-image guided transthoracic needle biopsy of the lung, with its high sensitivity, specificity, and accuracy, that it is an important diagnostic tool in the detection of malignancies in the lungs and thoracic cage.

Materials and Methods. A retrospective analysis of 252 patients who underwent real-time computer tomography -guided transthoracic biopsy of thoracic lesions in the previous 5 years in the pulmonology department of Lviv Regional Pulmonary Clinic-Diagnostic center, was carried out. Cases were classified into the following diagnostic categories: malignant, benign and non-diagnostic (non-specific benign without evidence of malignancy and insufficient specimen).

Results. A conclusive diagnosis was obtained in the 252 procedures in which patients were diagnosed with malignancies, tubercolomas, local exudative pleuritis and fibrosis.

Conclusion. Transthoracic needle biopsy guided by computer tomography performed by pulmonologists, is a safe procedure with high diagnostic accuracy, were we achieved similar results to those previously obtained by radiologists.

COMPUTED TOMOGRAPHY-GUIDED TRANSTHORACIC NEEDLE BIOPSY IN THE DIAGNOSIS OF MALIGNANCIES

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The mystery of cancer is one of the most important problems in biology and medicine in modern times, and it’s a major problem which worries the civil society, with being the second leading explanation for death within the world. Appealing to my young scientists, lung malignancies is one of the significant problems in developing countries,due to different predisposing factors ,including tumor metastasis from different sites, i.e., cervix, git, lymph nodes etc.

Thanks to heaven reality has changed! Through the years, scientists and up- to-date medicine doctors and professors are still searching for the best exact technique of investigation for diagnosing the malignancy with the highest yield of accuracy and low incidence of wrong diagnosing.

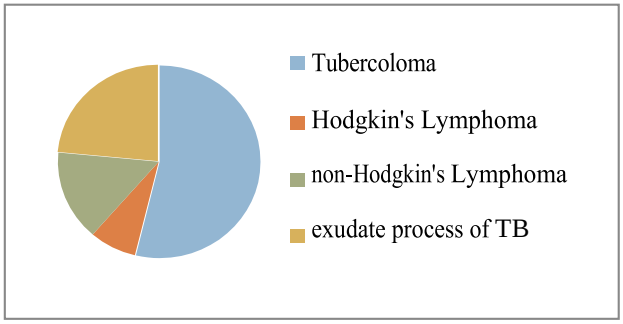
“Transthoracic needle biopsy” was that light which guided medical experts in the field of malignant tumor diagnosing, guided with the computer tomography competing other radiological imaging technique in the accuracy, efficacy and percent of complications.

Materials

Under a sterile conditions, and presence of radiologist, local anaesthesia is given a biopsy needle is passed to the target area guided by the CT image, an additional laser guidance system is added to the procedure of TTNB, which will facilitate and give an ideal trajectory angle for the needle through the pleura and skin.

And here in Lviv at the Physio- Pulmonary Regional Hospital - Diagnostic Center, a statistical study was conducted to 98 patients with the peripheral location of tumor formation. Malignant tumors was discovered in 80 patients, tuberculoma is diagnosed in 7 cases (7,1 %), non-Hodgkin’s

lymphadenoma – 2 (2 %), Hodgkin's lymphadenoma – 1 (1 %). Exudates processes of tuberculosis genesis in lungs was discovered in 3 patients (3,1 %). Percent of verification of diagnosis after the lead through of TTBKT – 88,8 %. In 5 cases TTBKT became complicated of pneumothorax, 2 patients there was haemoptysis.



Discussion

The most common complication found was pneumothorax, where patients went for chest tube drainage, in addition to other complications as small lesions, haemoptysis, and pulmonary haemorrhage which rarely occur.

According to statistics no significant difference was found between complications rates and gender, age, tumor volume, and localization. But both patients and procedure factors play a significant role in reducing the incidence and severity of occurrence especially for pneumothorax. Patients factors are those related to (position of the patient, absence of emphysema, lesion depth, and that for procedure are (experienced operators, number of pleural passes and biopsies plus needles trajectory angle and its gauge).

In some cases the results of TTNB is neither positive nor negative , in other words the biopsy don't provide adequate info to differentiate between malignant or benign tumors which will affect the final diagnosis and its accuracy. For that obtaining more than one tissue cores will improve the molecular testing (i.e. EGFR mutation / ALK translocation / ROS1 rearrangement) and will optimize patient's treatment.

In this article, shedding the light on the difference between Ultra-sound & Computed-Tomography in the guidance of the TTNB is quiet important. US is a small machine in which it can be moved to the patient's room , when being in a comfortable position , compared to the CT where patients with dyspnoea will not be able to tolerate prone or supine position. Both techniques have the same diagnostic yield, with fewer complications reported from the usage of US, but CT has an excellent spatial resolution, and the biopsy is feasible if pneumothorax occurred during the procedure.

Conclusion

The twentieth century has been no less inventive than previous centuries in proposing new theories and techniques for Diagnosing of thoracic lung malignancies, today TTNB guided by the CT image, is the most sensitive method which carries out specific well- diagnosed results, with high accuracy, efficacy and less complexity.

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