



The role of histopathology in the diagnosis of oncological diseases

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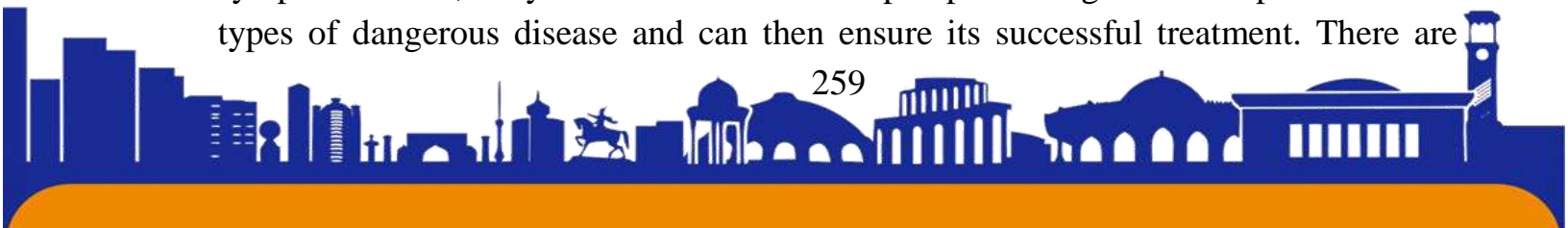
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Annotation: Cancer is one of the second leading causes of death worldwide, with approximately 18 million new cases and 10 million deaths each year. Cancer is growing rapidly in all countries and by 2040 will reach 30 million. is projected to rise (WHO). Screening, early diagnosis, treatment, and follow-up have a major impact on good care and patient survival. Histopathological examination is always the first step in diagnosing cancer. Histopathology services are required for several purposes in cancer control. In the organization of histopathological laboratory services, we usually establish a network of primary laboratories, in which the designated main laboratory supports laboratories at the regional and peripheral levels.

Keywords: Histopathology, Telepathology, Cancer, Microscope, Lymphocytic infiltration

Relevance: Test centralization allows for increased operational efficiency by combining scarce resources and facilitates the introduction of uniform standards. Histopathology services are used not only in the treatment of cancer, but also in the diagnosis of other diseases, including infection, inflammation and degenerative diseases. It is estimated that 70% of all medical decisions are made on the basis of laboratory diagnostics. histopathological samples provide more information about the disease and its effect on the tissues, as the preparation process preserves the basic structure of the tissues. Thus, some features of the disease, such as lymphocytic infiltration of cancer, can only be excluded from the histopathological picture. In addition, histopathological diagnosis remains the “gold standard” in the diagnosis of many diseases, including almost all types of cancer. The high rate of cancer among the world’s population is always associated with increasing risk factors. Thus, preventing or limiting cancer is one of the most difficult issues for us, and it is still out of our control, especially in people at high risk of developing malignant tumors.

The purpose of our research. The most important point that makes cancer a very dangerous disease is related to the delay in diagnosis and the absence of specific symptoms. Thus, early detection is the first step in preventing the development of such types of dangerous disease and can then ensure its successful treatment. There are

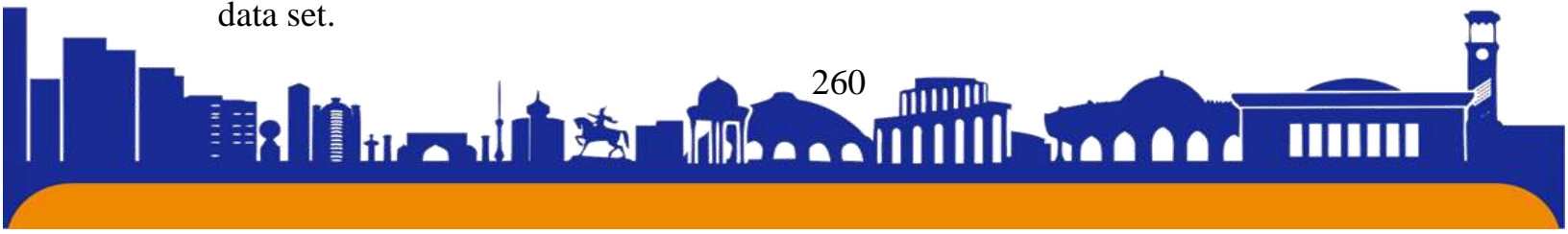




currently many diagnostic methods that can be used to diagnose cancer, but unfortunately, they still fail at a high rate, especially in the early stages of diagnosis. This condition forces the physician and surgeon to deal with enlarged tissue of various sizes, and even if it is small, the suspicious condition should be referred to a pathologist for a final decision.

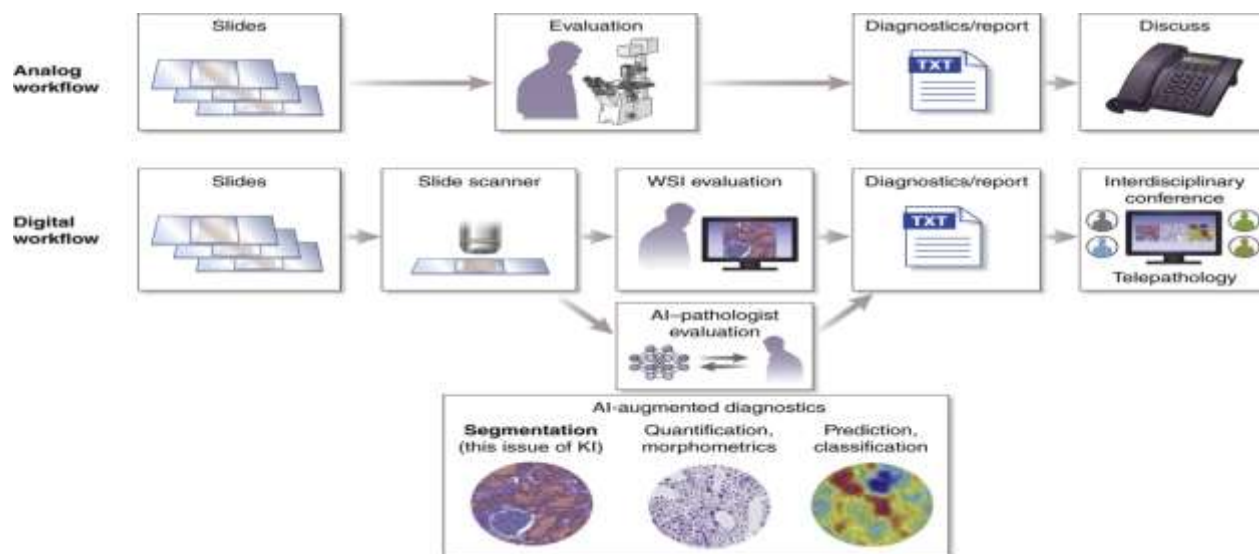
Materials and methods

Therefore, the number of samples sent for histological examination is a good indicator for the level of education indicated by the medical staff, which leads to an absolute limitation of the mortality rate from cancer. Although many of our medical bases have many modern methods, histopathological examination is still of prognostic importance in the detection of cancer with significant results than other diagnostic methods. This is due to many important aspects of histopathological examination, which is mainly associated with high accuracy in the diagnosis of cancer, breast cancer (95, 4 %) and other dangerous diseases, such as high-grade gliomas. However, the study found more important diagnostic results for many cancers compared to other laboratory methods such as mammography screening or light-based detection and oral spectroscopy for breast cancer. means to use. It aims to manage data based on data obtained from digitized sample slides using a virtual microscope. This virtual microscope uses digital scanners to photograph, store, analyze digital slides, and finally share them with a scientist. These scanners mimic a traditional microscope with additional software that visualizes and analyzes the images obtained. Unlike traditional microscopy, the slides are directly stained after preparation. settings are scanned and stored on a secure server. Pathologists can consult a slide scan directly online (from anywhere within a secure server). The diagnostic result is sent to the pathology laboratory. No manual logistics is required. Digital pathology provides a faster and more efficient workflow by sharing images taken around the world. It also leads to better results for patients, saving the pathologist time and allowing a quick and accurate diagnosis. Since physical transport is not required, the work process is optimized, allowing for quick diagnosis. The photos can be shared in minutes with teams from all over the world. Access to the sample image is significantly improved because there is no need to go directly to the laboratory to put the slide under the microscope. uniting several communities at the same time and spread all over the world. This helps to get advice from someone who specializes in a specific field away from the sampled laboratory. A new concept from analyzing a large data set.





the next 5 -year plan of the scientific project to be completed:



CONCLUSION:

1. We organize telepathology in the organization of histopathology laboratory, thus cooperating with histopathology laboratories in the country and foreign European histopathology laboratories in the diagnosis of diseases, through which we can achieve the prevention of oncological diseases by examining, detecting and treating any histological material.

2. With early detection and monitoring of the disease through modern treatment methods, we hope that we can overcome it.

It plays an important role in early diagnosis and continuous monitoring of cancer, as well as in the prevention and screening of oncological diseases.

3. Digital pathology provides a faster and more efficient work process by sharing images taken around the world. It also leads to better results for patients, saving the pathologist time and allowing a quick and accurate diagnosis.

4. The opening of a histopathological laboratory is the key to disease prevention, screening and early detection in our region. This saves the patient's life

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