



## **EARLY MORPHOLOGICAL DIAGNOSTICS OF DROUGHT AND PREDOPUCHOLOUS GORTHAL DEVICES WITH LATER MALIGNISATION (LITERATURE REVIEW)**

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### **Abstract:**

It is currently known that about 90% of malignant neoplasms of the larynx are carcinomas developing from precancerous tumors. Their early detection and timely treatment will help to prevent the development of invasive cancer, which causes severe complications, the treatment of which requires mutilating operations, significantly reducing the level and quality of life of patients, increasing the percentage of disability, most of whom are of working age [2,5,7].

**Keywords:** morphology, malignant neoplasms of the larynx, World Health Organization, early diagnosis

### **INTRODUCTION.**

According to the World Health Organization (WHO), precancerous lesions of the larynx are "morphological changes in the mucosa caused by chronic local irritants or related to the local manifestation of generalized diseases, presenting a higher probability of degeneration into carcinoma". It is now generally accepted that the diagnosis of precancerous lesions of the larynx should be based on the morphological characteristics of the lesion[3,6].

Reliable morphological verification based on visualization of initial morphological changes of laryngeal mucosal areas, as well as correct interpretation of data in combination with clinical manifestations can contribute to early diagnosis. Due to timely detection of diseases there are certain successes in treatment, increase of duration and quality of life of patients with benign and pre-tumor diseases of the larynx with probable malignization of the process. In the structure of oncological morbidity laryngeal cancer makes up about 2-4 %, occupying the 9th place, also these indexes among male population remain high - the 4th place [4]. As statistical data for the Republic of Uzbekistan show, the number of patients with laryngeal pre-tumor diseases also tends to grow, which makes this problem urgent and requires searching for its solution.

Larynx is an organ with a complicated anatomic structure due to a large number of vessels providing blood flow, and also it has certain difficulties when performing surgical operations, taking into account technical approaches. With the development of video-optical technology, video-endoscopy has become the most commonly used method for diagnosing laryngeal diseases - it is relatively accessible, easy to use technically when examining the larynx. However, the

presence of modern technology does not cancel the human factor in the interpretation of imaging data and biopsy sampling, so at the pre-hospital stage diagnostic errors are over 35%, and during hospitalization up to 30.5% [2,9]. But it should be noted that the initial forms of malignization - cancer in situ are diagnosed in 3-6%, stage I - in more than 20.9%, but most patients are diagnosed in stages III-IV, which is more than 60-75% of initially detected laryngeal tumors. The main reasons are low cancer alertness, the absence of clear diagnostic components and algorithm of patients' management by general practitioners, general internists, as well as by otorhinolaryngologists. Diagnostic errors delay for 2-10 months the adoption of the correct tactics of treatment of patients in the early stages of the disease and the use of inadequate treatment in the form of anti-inflammatory, anti-allergic, physiotherapeutic therapy, which ultimately only aggravates the process and accelerates malignization with the subsequent developing clinical picture of laryngeal cancer [8]. As is known, the process of olecification can occur after a long period, which can last for 10-15 years, and it is necessarily preceded by emerging morphological changes in the epithelium, as well as many transformations of epithelial cells of the mucosa, followed by the formation of a cancerous tumor of the larynx[12].

Regarding the presence of background or precancerous diseases, this concept now includes an evolving pathological process due to the readiness of the tissue for oselogenesis and transformation. [10 ]. According to WHO, there are distinguished obligate and facultative forms, so to the obligate precancer of the larynx include chronic hyperplastic laryngitis, leukoplakia, leukokeratosis and pachydermia. As



facultative - contact fibroma, scar process after burns and chronic specific infections. The main risk factors of background diseases of the larynx are chronic inflammatory processes potentiated by the presence of various pathogenic microflora, including environmental factors. One of the processes most often causing changes in the morphological integrity of the larynx is the progression of a chronic hyperplastic process [14]. In this case there are certain changes determined endoscopically - by biopsy and study of the morphological tissue component, characterized by the presence of swelling and thickening of the laryngeal mucosa, with a characteristic intense pink or blue coloring, opaque covering, dull epithelium. On the basis of presence of morphological substrate, diffuse and limited laryngitis, prolapse of laryngeal mucosa, chronic inflammatory edema of vocal folds are distinguished, their frequency varies and is 30-55%, malignization varies from 2.5 to 37% and more [13], and DH development takes from half a year to several years. Leukoplakia and pachydermia, morphologically characterized by growths with jagged, jagged edges, changes of mucous membrane color from pale pink to gray, are also in the development of malignant processes among precancerous diseases of larynx after chronic hyperplastic laryngitis. Leukoplakia and pachydermia are dyskeratoses with a single morphological component due to increased proliferation of the multilayer squamous epithelium of the larynx. Another reason for the occurrence of changes in the laryngeal mucosa, with further malignization is the presence of human papillomavirus infection, currently studied and cause this process 6 and 11 type, causing papillomatosis, developing on the mucosa covered by multi-layered squamous epithelium, which is a single small bumpy formation, pale gray color with cauliflower-like plaque, with preserved areas of unchanged mucosa. Malignization of papillomatosis occurs in 5-15% of cases and also has a long period of development, taking up to 10-12 years on average.

In this regard, diagnostic endoscopy of larynx and larynopharynx, including fibrolaryngoscopy with the possibility of enlargement of the image for further continuation of microlaryngoscopy and endolaryngeal microsurgery, is a mandatory component of diagnosis at the initial stages [7,15]. When malignant transformation occurs in the mucous membrane against the background of existing precancerous processes in the larynx, it is impossible to visually differentiate the malignization process using endoscopy alone, therefore, a biopsy with the study of complex morphological analysis is a mandatory component, which allows timely diagnosis of pre-tumor

processes and early laryngeal cancer. Histopathological diagnosis allows to inform the clinician what further steps the clinician should take, what treatment patients with benign, potentially or actually malignant lesions should receive[1,16]. The overall morphological substrate of changes in the laryngeal mucosa is the most important factor in determining treatment tactics. The management decision mainly depends on whether there are single or multiple lesions, widespread disease.

Also, important factors for deciding on further management tactics are: general condition, possibility of surgical intervention, physiological age, presence of concomitant pathology, and aggravation with other risk factors.

It is difficult to predict and determine the lesions that will give progression and malignancy of the process, only on the basis of clinical examination data. Signs most important in terms of the development of malignancy are: ulceration, erythroplakia, surface granulation, increased thickness of keratin, size, occurrence of recurrence after excisional biopsy.

In conclusion, it should be noted that the first stage of treatment tactics should include the determination of the pathological process in the laryngeal mucosa, which lesion it belongs to - low or high risk, which we perform on the basis of a thorough medical history and further clinical examination. High-risk lesions include: severe dysplasia or carcinoma in situ. And risk factors such as - tobacco abuse, ethanol abuse, occupational, diet and vitamin deficiency, radiation exposure, viral exposure (e.g., HPV) and laryngopharyngeal reflux are among the epidemiologic factors associated with laryngeal carcinogenesis.

The development of molecular biology and genetics has led to a clearer understanding of the mechanisms of cell malignization and neoplasia, but so far there are no certain data on the clarifying diagnosis of the expression of genes controlling the processes of proliferation and apoptosis, involved in the pathogenesis of malignant growth, markers of prognosis of malignant growth processes.

**CONCLUSIONS:** Thus, complex diagnostics of pre-tumor diseases and early laryngeal cancer includes multicomponent and multistage examinations with obligatory visualization allowing to make a diagnosis verification to form further tactics and choose adequate management and treatment of patients with benign and pre-tumor diseases of the larynx.



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