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## ROLE OF CORTISOL IN THE CARCINOGENESIS OF LARYNGEAL CANCER

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### ABSTRACT

Laryngeal precancerosis is a pathogenetic borderline condition including a wide range of risk factors that increase the likelihood of laryngeal epithelial cell malignancy. The induction of tumour growth is without fail associated with the precancerous changes in the mucous membrane of the larynx. Many tumours are hormone-dependent.

The study of the pathogenetic role of hormones in precancerous diseases and laryngeal cancer remains a very relevant problem. Cortisol protects the human body from any stress; however, its role in carcinogenesis is not fully understood. Cortisol is involved in all processes in the body, so almost all cells are equipped with specific receptors. The purpose of our study is to determine the concentration of the cortisol hormone in the blood of patients with laryngeal precancerosis and cancer; to determine its role in malignant transformation and laryngeal carcinogenesis.

The article provides an analysis of the pathogenetic role of cortisol in the genesis of various precancerous diseases and laryngeal cancer. The blood concentration of the stress hormone cortisol was analysed in 56 patients with laryngeal precancerosis and 26 patients with malignant neoplasms of the larynx. The level of cortisol concentration in the blood of patients with laryngeal cancer is significantly higher than in patients with precancerous larynx. Scientific novelty: for the first time, a comparative analysis of cortisol levels in patients with precancerous diseases and laryngeal cancer was carried out.

The results obtained during the research create prospects and generate great interest in studying cortisol receptors in the tumour tissue of the larynx.

**KEYWORDS:** larynx, hormone, precancerous diseases, laryngeal cancer, cortisol, malignancy, carcinogenesis.

### INTRODUCTION

Currently, there are no objective and reliable markers for assessing the risk of malignant transformation of precancerous laryngeal diseases other than determining the degree of dysplasia [Gorban N et al., 2013; Rivera C et al., 2017]. Precancerous and cancerous diseases of the larynx are most often

registered in men over the age of 40-50 years [Antoniv V et al., 2011; Naydyon A et al., 2012]. Women are characterized by an increase in the incidence of dyskeratosis and laryngeal cancer after 51-55 years, or at the age of 40 years. A number of authors associate such findings in this age group with hormonal

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