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**DETECTION OF MARKERS OF ACUTE HERPESVIRUS PROCESS, ASSOCIATED WITH HERPES SIMPLEX AND EPSTEIN-BARR HERPES VIRUSES IN PATIENTS WITH ACUTE AND CHRONIC LARYNGITIS**

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Herpesvirus infections are the most common viral infections on the Earth with tendency of constant growth [1]. The main biological and pathogenetic features of herpesvirus causative agents are their long-lasting persistence in the infected human organism, polytropism to different tissues and systems, ability to reactivation from a latent state [2]. Besides, numerous investigations have proven, that some of herpesviruses including Epstein-Barr virus (EBV) are responsible for development of some benign and malignant neoplasms in humans [3, 4].

All this necessitates strengthening the attention to different manifestations of herpesvirus infections in different fields of medicine. Therewith, until now there have been only occasional works describing the cases of detecting herpesviruses in patients with inflammatory diseases of the larynx. The authors have underlined the necessity of timely diagnosis in order to provide an adequate specific therapy of the patients with detected herpesvirus pathology [5-8].

The purpose of the present work is to determine the role of some herpesvirus pathogens (herpes simplex virus – HSV and Epstein-Barr virus – EBV) in acute and chronic laryngitis on the basis of detection of active herpesvirus process markers in the patients.

**Material and methods**

One hundred and eight patients aged from 18 to 58 years were examined for acute HSV infection marker. They were treated as out-patients or in-patients in the City Hospital No. 30 (Kharkov), of them 40 patients with acute laryngitis and 68 – chronic one.

Immunoenzyme test systems “VectoHSV-Ig M strip, VectoEBV-Ig M strip, VectoEBV-EA Ig G” manufactured by Joint Stock Company “Vector-Best” (Russia) were used to detect Ig M to HSV and VCA-Ig, EA Ig G to EBV.

The controls were 20 healthy persons aged from 20 to 49 years, who were subjected to similar serologic examination by means of the test systems mentioned above.

**Table 1. Results of detecting active markers of HSV infection in patients with acute and chronic laryngitis**

Diagnosis and method of patients investigation	Number of investigated patients	Positive findings (Ig M to HSV 1/2)	
		Absolute number	%
Acute laryngitis patients	40	19	47.5
Chronic laryngitis patients	68	18	26.4
Healthy persons	20	0	-

**Results and discussion**

When accepted for treatment the patients complained of hoarseness, pain or sensation of a foreign body in the throat, paroxysmal cough, general malaise, indisposition, rapid voice fatigability.

The majority of the chronic laryngitis patients (55,8 %) had a history ill of 5-7 years with periodic exacerbations up to 3-4 times a year. The main factors causing exacerbations were overcooling or acute respiratory viral infections. The larynx inspection showed different clinical manifestations, which depended on the laryngitis form and the disease period.

The findings of serologic tests for the markers of active HSV and EBV infection in patients with acute and chronic laryngitis are given in Tables 1 and 2.

The data of Table 1 show, that almost half of the acute laryngitis patients (47.5 %) and one third of the chronic laryngitis patients (26.4 %) had Ig M to HSV in their blood.

This proves acute form of HSV infection, although the patients did not have typical vesicular rash. Only some of the patients with serologically proved diagnosis had fine papular rash on the soft palate, on the pharynx posterior wall and the larynx mucous membrane with edema of local tissues.

No one of the 20 examined healthy control persons showed the acute HSV infection marker (Ig M to HSV).

The data of Table 2 shows that only one of the chronic laryngitis patients had Ig to both capsid and early antigens of EBV. The laboratory findings of this patient demonstrated early primary EBV infection (from 1 to 2 weeks).

The availability of EA-Ig G in the blood of two acute and three chronic laryngitis patients indicates the late (from 2 to 3 weeks) primary EBV infection.

These patients were subjected to a more detailed investigation and administered an antiviral therapy. The blood of healthy persons did not contain either VCA-Ig M or EA-Ig G.

**Conclusion**

1. The performed serologic examination of 108 patients proved that 47.5 % of acute and 26.4 % of chronic laryngitis patients had active HSV infection markers.
2. The serologic examination of 23 patients showed that only one patient with acute laryngitis had early (from 1 to 2 weeks) primary EBV infection and five patients had late (from 2 to 3 weeks) EBV infection.
3. The serologic screening of the patients with inflammatory diseases of the larynx allowed to detect active herpesvirus process and administer an antiviral therapy.

**Table 2. Detecting active markers of EBV infection in patients with acute and chronic laryngitis patients**

Diagnosis and method of patients investigation	Number of investigated patients	Detecting EBV infection markers		
		VCA-Ig M	EA-Ig G	VCA-Ig M + EA-Ig G
		Positive findings (absolute number)		
Acute laryngitis patients	11	0	2	1
Chronic laryngitis patients	12	0	3	0
Healthy persons	20	0	0	0

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Markers of acute HSV infection (Ig M to HSV) were detected in the blood of 108 patients, including 47.5 % of patients with acute and 26.4 5 % of patients with chronic laryngitis. Acute EBV infection markers (VCA-

Ig M and EA-Ig G) were detected in 6 from the 23 (26.6 %) examined patients.

**Key words:** Herpes simplex virus, Epstein-Barr virus, acute and chronic laryngitis.

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**ДЕТЕКЦІЯ МАРКЕРОВ ОСТРОГО ГЕРПЕСВИРУСНОГО ПРОЦЕСА, АСОЦІЙОВАНОГО С ВИРУСАМИ ПРОСТОГО ГЕРПЕСА І ЕПШТЕЙН-БАРР, У БОЛЬНИХ ОСТРИМ І ХРОНИЧЕСКИМ ЛАРИНГИТОМ**

**Панченко Л.А., Торяник І.І., Попова Н.Г., Кандзюба С.І., Попова Л.А.**

В крові 108 больних с воспалительними захворюваннями гортани обнаружены маркеры острой HSV- інфекції (Ig M к HSV) в 47,5% при остром і в 26, 4% - при хроническом ларингите. Маркеры острой EBV – інфекції (VCA-Ig M и EA-Ig G) определены у 6-ти из 23-х (26,0%) обследованных больних ларингитом.

**Ключевые слова:** Вирус простого герпеса, Эпштейн-Барр вирус, острый и хронический ларингит.

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**ДЕТЕКЦІЯ МАРКЕРІВ ГОСТРОГО ГЕРПЕСВИРУСНОГО ПРОЦЕСУ, АСОЦІЙОВАНОГО З ВИРУСАМИ ПРОСТОГО ГЕРПЕСУ ТА ЕПШТЕЙН-БАРР, У ХВОРИХ НА ГОСТРИЙ ТА ХРОНІЧНИЙ ЛАРИНГІТ**

**Панченко Л.А., Торяник І.І., Попова Н.Г., Кандзюба С.І., Попова Л.А.**

У крові 108 хворих із запальними захворюваннями гортані встановлені маркери гострої HSV- інфекції (Ig M до HSV) у 47,5% при гострому та 26, 4%- у разі хронічного перебігу ларингіту. Маркери гострої EBV – інфекції (VCA-Ig M та EA-Ig G) визначені у 6-ти із 23-х (26,0%) обстежених хворих на ларингіт

**Ключові слова:** вірус простого герпесу, Епштейн-Барр вірус, гострий та хронічний ларингіт.