

Yu.Burega

Zaporizhzhya State
Medical University

Key words:

lymphocytes, peanut
agglutinin, gingival
mucous epithelium,
rat.

Received: 13.08.2015
Accepted: 10.09.2015

UDC 611.311-018.53:[547.963:634.58].08+616.311.2-018.53-053.13-097.1-092.9]:599.323.4

**DISTRIBUTION FEATURES OF LYMPHOCYTES
WITH PEANUT AGGLUTININ POSITIVE
RECEPTORS IN GUMS EPITHELIUM OF RATS
IN NORM AND AFTER INTRAUTERINE
ANTIGENIC ACTION**

The work is the fragment of SRW «Lectin histochemical characteristics of morphogenesis of the organs and tissues in early postnatal period in norm and experiment» (number of state registration 0109U003986).

ABSTRACT. Background. According to the conception “Lymphocyte is the main factor of morphogenesis” changes in lymphocyte receptor repertory, induced by antigenic action in the fetal period of development, influence on organs and tissues development after birth. Functional activity of immunological immature PNA+ lymphocytes inducing the change in functioning, imbalance in formation cells of microenvironment, synthesis of intracellular substance and the fibers of extracellular matrix leads to violation of morphological and functional condition of organs. **Objective.** Determine the features of distribution of lymphocytes with receptors to peanut agglutinin in gingival epithelium of rats in norm and after intrauterine antigenic action. **Methods.** The object of the research was: 224 jaws of 112 white laboratory rats. The rats divided into three groups. First group – intact rats. Second group –rats, which were introduced 0,05 ml solution of antigen in the amniotic fluid on the 18th day of pregnancy by the method of N. Voloshyn, the third group – control, the animals were introduced intrauterine 0,05 ml of physiological solution on the 18th day of pregnancy. The antigen was split vaccine Vaxigrip 2009. **Results and conclusion.** In newborn animals, after intrauterine antigen action it was determined significantly increased content of PNA+ lymphocytes in the epithelium of gingival mucous, compared with control group, where PNA+ lymphocytes number gradually decreases. On the 11 th day of life, in animals of second group, quantity of intraepithelial PNA+ lymphocytes remains higher. On 45th day of postnatal formation its share does not significantly differ from similar indicators in all groups and decreases compared with neonatal period.

© Yu.Burega, 2015
✉ axios.ua@gmail.com

Citation:

Burega Yu. Distribution features of lymphocytes with peanut agglutinin positive receptors in gums epithelium of rats in norm and after intrauterine antigenic action. *Morphologia*. 2015;9(3):8-11.

References:

1. Voloshyn MA, Matvieishyna TM, Hrinivetska NV, Bureha YuO, Talanova OS, inventors; Zaporizhia State Medical University, Voloshyn MA, Matvieishyna TM, Hrinivetska NV, Bureha YuO, Talanova OS, assignee. Simulation method for antigen antenatal action. Ukraine patent UA 63020. 2011 Feb 25. Int. Cl. G09B 23/28. Ukrainian.
2. World Health Organization. Design of an oral health survey. In: Oral health surveys basic methods. 5th ed. France; 2013. 13-21.
3. Silva N, Abusleme L, Bravo D, Dutzan N, Garcia-Sesnich J, Vernal R, Hernández M, Gamonal J. Host response mechanisms in periodontal diseases. *J Appl Oral Sci.* 2015 May-Jun;23(3):329-55. doi: 10.1590/1678-775720140259. PMID: 26221929.
4. Voloshyn NA. [Lymphocyte – the factor of morphogenesis]. *Zaporozhye medical journal.* 2005;5:122. Russian.
5. Lutsik AD, DetyukYeS, Lutsik MD authors; Panasyuk YeN editor: [Lectins in histochemictry]. Lviv: Vyshcha shkola; 1989. 144. Russian.
6. Voloshyn NA, Grygoryeva EA. [Experimental model of undifferentiated connective tissue dysplasia syndrome]. *Pathologia.* 2009;6(1):39-42. Russian.
7. Maslova IN. PNA- and SBA-positive lymphocytes content in the major salivary glands' structures during early postnatal period after intrauterine antigenic action. *Pathologia.* 2014;(3):78-82.
8. Voloshin N, Svetlitsky A. [Features of PNA+- and SBA+-lymphocytes dynamics in structures of animals small and large intestine in early postatal period of development after antigen introdacton] *Ukrainskyi morfologichnyi almanakh.* 2008;6(1):153-4. Russian.