

N.V.Stanishevskaya

State institution
“Dnipropetrovsk medical
academy of the Ministry
of Health of Ukraine”

Key words:

histology,
methods of the practical
classes,
cardiovascular system,
endothelium,
endothelial function,
endothelial apoptotic
microparticles.

Received: 04.05.2016

Accepted: 27.05.2016

UDC 616-08:616-008.921.1-008.64-021.7.

**THE METHODS OF THE PRACTICAL
CLASSES OF HISTOLOGY ON THE
CARDIOVASCULAR SYSTEM**

ABSTRACT. The method of the performing practical classes by the cardiovascular system topic should include a study of the morphology and function of the endothelium. Last endothelial conception considers the endothelium as the largest endocrine organ. So it is necessary to pay much attention to the study of mediators produced in endothelial cells and their biological effects within the framework program of histology. The article contains information about the most famous metabolites, such as nitric oxide, endothelin, thromboxane, von Willebrand factor, as well as apoptotic endothelial microparticles (EAM), which, according to modern concepts, can become a universal marker for endothelial dysfunction. In fact endothelial dysfunction is a part of the pathogenesis of all cardiovascular diseases, and the production of EAM is associated with activation, endothelial damage or apoptosis. This fact can give ground for use EAM as a diagnostic marker for risk assessment of adverse outcomes and the development of irreversible effects in patients with cardiovascular pathology. It opens a broad prospect of the application of biological endothelial factors in clinical diagnostic researches. Within the framework of classes and seminars for the cardiovascular system it is highly important to pay due attention to the function of biologic active substances produced by the endothelium. It will greatly expand the professional outlook of future doctors.

© N.V.Stanishevskaya, 2016

✉ nataly2004_lg@mail.ru

Citation:

Stanishevskaya NV. [The methods of the practical classes of histology on the cardiovascular system]. *Morphologia*. 2016;10(2):106-8. Russian.

References

1. Kasatkina SG, Kasatkin SN. [The meaning of endothelium dysfunction in patients with diabetes mellitus of the second type]. *Fundamental research*. 2011;(7):248 – 252. Russian

2. Korzh A.N. [Modern ideas about the structure, functions and biological role of vascular endothelium]. International medical journal. 2003; (1):130 – 134. Russian.

3. Berezin AE, Kruzliak P. [Circulating endothelial apoptotic microparticles as novel marker of the cardiovascular risk]. Ukrainskyi medychnyi chasopys. 2014; 5(103):83 – 87. Russian.

4. Lutsik OD, Ivanova AY, Kabak KS, Chaykovsky YuB, authors; BosetskyOL, editor: Histologiya ludyny [Human histology]. Kyiv: Knyha plyus; 2003. 593p. Ukrainian.