Nesterenko M. A., Student of Medical Faculty
Ghranyna E. V., Assistant at Department of Anatomy

Kharkiv national medical university

Kharkiv, Ukraine

MORFOFUNCTIONAL FEATURES OF THE SMOKING PEOPLE RESPIRATORY SYSTEM STRUCTURE

The topic of the harmfulness of smoking was and remains relevant. Our goal is to study the effect of smoking on the structure of the lungs and the harm of smoking for the human respiratory system.

Smoking causes many diseases of the respiratory system. Among them are bronchitis, pneumonia, bronchial asthma, tuberculosis, lung cancer and others.

The main component of cigarette smoke is nicotine. It refers to the narcotic substances, as it causes addiction, with a toxic effect on the human body. It is the main substance that is addictive to tobacco smoking.

The lungs have a soft and friable structure, because of the special branching of the bronchial tree to numerous bronchioles, and to the alveoli. The vesicles of the alveoli are filled with oxygen, which then spreads all over the body. Tobacco smoke contains millions of concentrated aerosol units, its particles fall into the lungs and forms a resin on their walls. This resin concentrates in the airways and paralyzes the cleansing process in the lungs.

Nicotine paralyzes cilia, and particles of tobacco smoke settle on the mucous membrane of the trachea and bronchi. The small sizes of these particles allow them to penetrate deeply and settle in the lungs. Tobacco smoke changes the composition of mucus, which becomes more viscous, its chemical composition changes. Mucous membranes of the larynx, trachea and bronchi are irritated and inflamed from frequent smoking. The first sign of a smoker can be a cough that irritates the mucous membranes. Therefore, chronic tracheitis and chronic bronchitis are common diseases for people who smoke.

As a result of our studies, it was found that smoking lungs are less elastic, dirty, their ventilation function is reduced, and they are aging early. Lungs change in color and size, with the duration of smoking they cannot completely be filled with oxygen. Two-thirds of tobacco smoke enters the lungs and covers up to 1% of the pulmonary surface. The action of tobacco smoke products for lung cells are in 40 times stronger than for any other tissue. The only positive fact is that after the cessation of smoking the process of breathing begins to recover. Cough and dyspnea are passed off. Fillability of the lungs is slightly improved and the inflammatory processes in the bronchi are stopped. But in the case of prolonged smoking, damage for the lung tissue can not be restored.

Therefore, we need preventional and educational work with people to prevent smoking-related diseases.

References:

^{1.} Атлас анатомии человека: Учеб. пособие. — 2-е издание., стереотипное. — В 4 томах. Т. 2. — М.: Медицина, 1996. — 264с.: ил. — (Учеб. лит. Для студ. мед. вузов).

^{2.} Internet resourses – https://www.omicsonline.org/pulmonary-respiratory-medicine.php.