

bone thickness in this place is reliably bigger ($p < 0,05$) as compared to the ankle bones. There is a probable difference between the ankle bones and along this surface for the benefit of the tibial bone.

The medullar canal plays a certain role not only in hemopoiesis but also gives a structural strength of the bone. Medullar canal constitutes the biggest percentage of the bone diameter in the lower third of the femur with high probability of difference as compared to the medial portions ($p < 0,01$). In the medial portions of the femur and tibial bone this canal is relatively narrowest for these bones, and in the lower third of all the

bones it is the widest. And these anatomical peculiarities did not possess correlations with sex or age group.

Various portions of long tubular bones of the lower extremity possess a number of structural-functional peculiarities. It is reflected in macroarchitectonics of bones and affects their resistance to the action of external mechanical force.

Among macroarchitectonic indices the sizes of the medullar canal (like medullar index) and its square may most of all influence upon occurrence of fracture.

LATEST PROSPECTIVE POLARIZATIONAL METHODS OF RESEARCH

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Polarization studies have been widely implemented in various industrial and commercial areas of human activities. In medical practice, these techniques are widely approved and implemented, but its use in forensic medicine is limited. We believe the introduction of advanced equipment and modern methods of processing results will reveal new diagnostic criteria of changes in biological tissues and media of the human body.

Detection of myocardial changes that would allow precise verification of the diagnosis of acute coronary insufficiency (ACI) in the practice of forensic experts is quite a challenge. However, recent studies show that the prevalence of this condition in Ukraine is 10% of all cases of autopsy. Given the prevalence distribution of ACI and difficulties of diagnosis of this condition, the search for methods of establishing the structural rearrangements of the human

myocardium under conditions ACI are promising.

Therefore, as an example, the goal of our study was to determine the capability of using fractal analysis of laser polarization images of the myocardium for the diagnosis of acute coronary insufficiency. To achieve these objectives we set the following tasks: to develop an algorithm of fractal image analysis of the myocardium, establish the restructuring of the heart muscle under conditions of ACI, to determine the diagnostic efficacy of fractal analysis of laser polarization images for establishing ACI.

As objects of study we used two groups of sections of myocardial tissue with a thickness of 30 microns: the first group – myocardial sections of deceased as a result of chronic ischemic heart disease (CIHD) (86 samples), the second group - myocardial sections of deceased as a result of acute coronary insufficiency (ACI) (85 samples).

Investigation of the structure of laser images of myocardial tissue was conducted in the traditional laser polarimeter setup.

The result was a series of polarization images of obtained samples of human myocardium and a comparative analysis was subsequently conducted. Distribution and polarization azimuth histograms of values for images of myocardial tissue samples of both groups were established. The obtained results showed a definite decrease in the optical activity of the extracellular matrix substance of myosin fibrils of myocardial tissue sample under conditions of ACI – increase in the value of the main extreme values of polarization azimuths. The logarithmic dependencies of spectra power distributions of polarization azimuths of laser images of myocardial tissue sections for both groups were established.

The value and ranges of changes in values of the statistical moments that characterize the distributions of logarithmic dependencies of polarization azimuths of

laser images of sections of myocardial tissue in both groups have been defined.

Thus the experimental data provide the basis for the use of fractal analysis of laser polarimetric images for the diagnosis of acute coronary insufficiency based on: azimuth distributions of polarization of laser images of myocardial tissue under conditions of acute coronary insufficiency, statistics; differences between dispersion Z_2^α are 2 times, asymmetry Z_3^α - 4 times and excess Z_4^α - 3,2 times. This research method can diagnose not only acute coronary insufficiency, but also differentiate between other pathological conditions when conventional histological methods are ineffective.

This study describes the prospects of using fractal analysis method of laser polarization images of human myocardium, highlighting diagnostic criteria of structural changes of the heart muscle in the study of human disease. We have presented the simplicity of establishing and accurately identifying areas of myocardial ischemia.

PHLEBEPHRAXIS AS A COMPLICATION OF EARLY POSTOPERATIVE PERIOD AFTER LIPOSUCTION OF ANTERIOR ABDOMINAL WALL

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Appearance of cadaver's examination cases of people who died in the early postoperative period caused by pulmonary embolism as a complication of phlebemphraxis (including deep vein of legs) became relevant, considering the increasing number of cosmetic operations with a purpose of surgically changing the nature of the fat deposition in certain areas of the body, particularly in the abdomen.

Due to anamnesis, female patient was born in 1968. She received lipoaspiration abdomenoplastics, which was successfully done without complications. The next day at the ligation chair she suddenly complained about stiffness and lack of oxygen.

Patient fainted within one minute, spumous exudation started from oral cavity, severe cyanosis of neck and head appeared. Resuscitation measures had no results, fact of