



SUDDEN CARDIAC DEATH IN FORENSIC MEDICAL PRACTICE

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Summary. Sudden cardiac death is a condition that turns into unconscious death and manifests itself within 1 hour with acute symptoms and is accompanied by cardiac pathology. The fact that diseases of the circulatory system are associated with dysfunction of the cardiovascular system in the aggregate is one of the pathologies proven by clinical and pathological studies. Recently, the pathology of coronary heart disease has attracted the attention of our medical staff with frequent cases of "sudden cardiac death" and has caused many controversial situations. For this, a histopathological examination of the tissue of the cardiac myocardium is carried out using materials obtained during the autopsy of the corpses of patients who died from various diseases. The aim of the study is to supplement data on cardiac pathologies.

Key words: autopsy, histology, myocardium, disease, examination.

**СУД ТИББИЙ АУТОПСИЯ АМАЛИЁТИДА ТЎСАТДАН
КАРДИАЛ ЎЛИМ**

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Аннотация. Тўсатдан кардиал ўлим – бу, нозўраки ўлим турига кириб, ўтқир симптомлари билан 1 соат ичида намоён бўладиган ва юрак патологиялари билан қўшилиб келадиган ҳолат бўлиб ҳисобланади. Қон айланиш тизими касалликлари юрак ва қон томирлар фаолиятининг бузилиши билан боғлиқ бўлиши, бирга қўшилиб келиши клиник ва патологоанатомик текширувларда ўз исботини топган патологиялардан бири ҳисобланади. Сўнгги вақтларга келиб, юрак ишемик касалликларига кировчи патология “тўсатдан кардиал ўлим” тез-тез учраб туриши билан тиббиёт



ходимларимизни эътиборини тортиб келмоқда ва кўпгина дискуссион вазиятларни келтириб чиқармоқда. Шу мақсадда турли касалликлардан ўлган беморларда ўтказилган аутопсия жараёнидан олинган материалларда келган юрак миокард тўқималари патогистологик ўрганиб чиқилди. Ишдан мақсад юрак патологиялари бўйича маълумотларни тўлдириши ҳисобланди.

Калит сўзлар: аутопсия, гистология, миокард, касаллик, экспертиза.

ВНЕЗАПНАЯ СЕРДЕЧНАЯ СМЕРТЬ В СУДЕБНОЙ МЕДИЦИНСКОЙ ПРАКТИКЕ

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Резюме. Внезапная сердечная смерть - это состояние, которое переходит в бессознательную смерть и проявляется в течение 1 часа острыми симптомами и сопровождается сердечной патологией. То, что заболевания системы кровообращения связаны с нарушением функции сердечно-сосудистой системы в совокупности, является одной из патологий, доказанных клиническими и патологическими исследованиями. В последнее время патология ишемической болезни сердца привлекает внимание нашего медперсонала частыми случаями «внезапной сердечной смерти» и вызвала множество противоречивых ситуаций. Для этого проводят патогистологическое исследование ткани сердечного миокарда по материалам, полученным в процессе вскрытия трупов больных, умерших от различных заболеваний. Цель исследования - дополнить данные о сердечных патологиях.

Ключевые слова: вскрытие, гистология, миокард, заболевание, обследование.

Relevance.

Nowadays, "sudden cardiac death" is one of the social problems of medicine, and it is one of the most difficult tasks for clinicians, pathologists, forensic experts. Many types of heart disease end in death of the patient, and in some cases, death occurs as a result of cardiac pathology at a time when no macroscopic signs are



found in the heart, and its evidence leads to major discussion situations. Pathologies and complications of the underlying disease, knowing the heart disease that comes as an additional disease, pathologists and forensic experts can make a post-autopsy diagnosis of heart pathology as a primary, secondary, background disease, get practical advice on the correct completion of the death certificate.

Goals and objectives.

The aim of the study is to identify the most common cardiac pathologies in the Bukhara region and, based on pathohistological findings, to develop which pathologies are more common, their consequences and preventive measures.) and macroscopic and microscopic analysis in the pathohistology department of the Bukhara Regional Bureau of Forensic Medicine. A total of 46 dead patients underwent heart tissue examination.

Materials and methods.

Based on macroscopic and microscopic studies of cardiac tissue during the study, a total of 46 cardiac tissue pathohistologically examined. For general morphology, 2 pieces from each heart, ie 1.5x1.5 cm from the upper and middle part, were cut and solidified in 10% neutralized formalin. After washing for 2-4 hours in running water, it was dehydrated in increased concentrations of alcohols and xylene, then paraffin was poured and the blocks were prepared. Incisions of 5–8 μm were made from paraffin blocks and stained with hematoxylin and eosin. The examination revealed the following pathologies:

Acute heart failure characteristic of alcoholic cardiopathy was observed in 19 cases, cardiomyopathy in 11 cases, and coronary atherosclerosis in 16 cases.

Results and conclusions.

The results of pathohistological examinations of the heart showed that in most cases, the pathology of acute heart failure (19 cases) characteristic of alcoholic cardiopathy was observed in the heart.

Acute heart failure characteristic of alcoholic cardiopathy (19 cases) - in some cases, ethanol may not be detected in the blood of a dead patient, but based on this result, it is also incorrect to say that the patient does not have alcoholic



cardiopathy. In such cases, the catamnesis of the deceased patient plays an important role.

In second place was the pathology of coronary atherosclerosis (16 cases). Coronary atherosclerosis (16 cases) is a chronic disease of the arteries of the elastic and musculoskeletal type, the accumulation of cholesterol and lipoproteins in the vascular wall as a result of disruption of the metabolism of fats and proteins in the body. In third place was the pathology of cardiomyopathy (11 cases).

Cardiomyopathy (11 cases) is a primary myocardial lesion of unknown etiology that is a disorder of heart function unrelated to the coronary arteries, valve apparatus, pericardium, systemic disease, or pulmonary hypertension.

When making a post-autopsy diagnosis, pathologists and forensic experts have the opportunity to cite renal pathology as the main, additional, background disease, to receive practical advice on the correct completion of the death certificate.

The underlying disease is a nosological unit that causes death by itself or through complications.

Background disease is a disease that is important in the emergence and development of the underlying disease, although it does not depend on the etiology of the underlying disease.

Concomitant (additional) disease is a nosological unit that is not etiologically and pathogenetically related to the underlying disease and its complications, does not affect its course and does not lead to death.

- These data open up the real prospect of a significant reduction in renal pathology and its resulting mortality, and provide undoubtedly useful information not only for pathologists, but also for all specialists involved in the diagnosis, prevention and treatment of kidney disease.

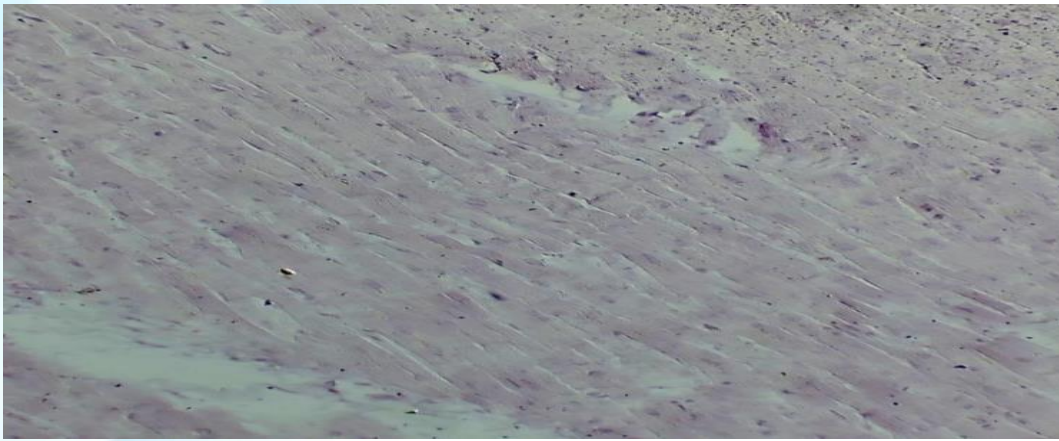


Figure 1. Loss of nuclei in some cardiomyocytes, weak neutrophil infiltration, onset of cardiomyocyte fragmentation.

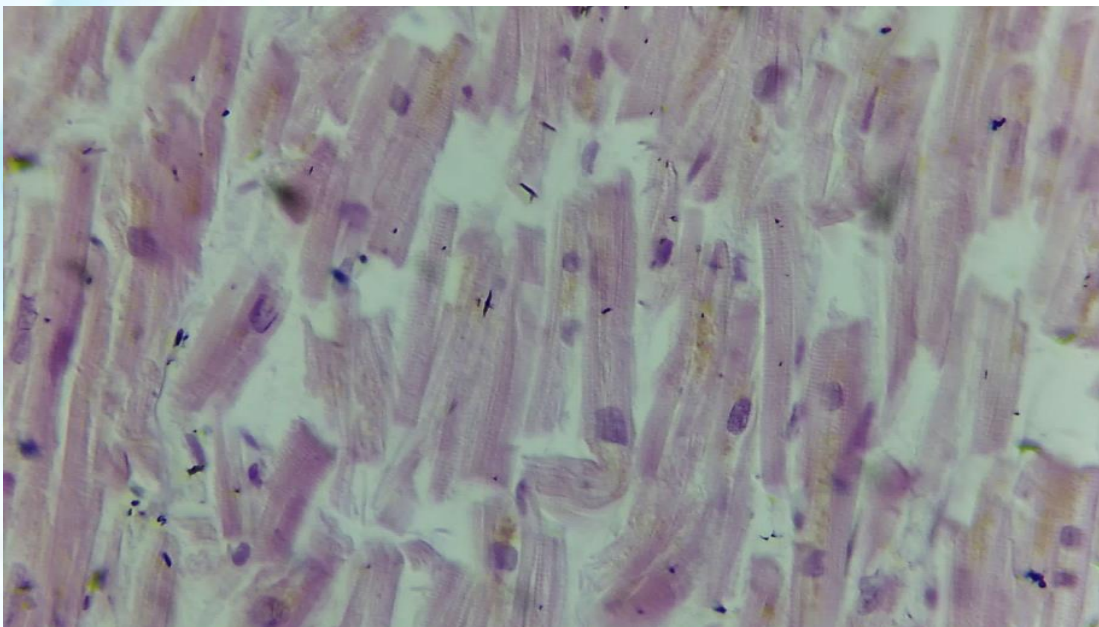


Figure 2. Fragmentation of a series of cardiomyocytes. Lipid drops.

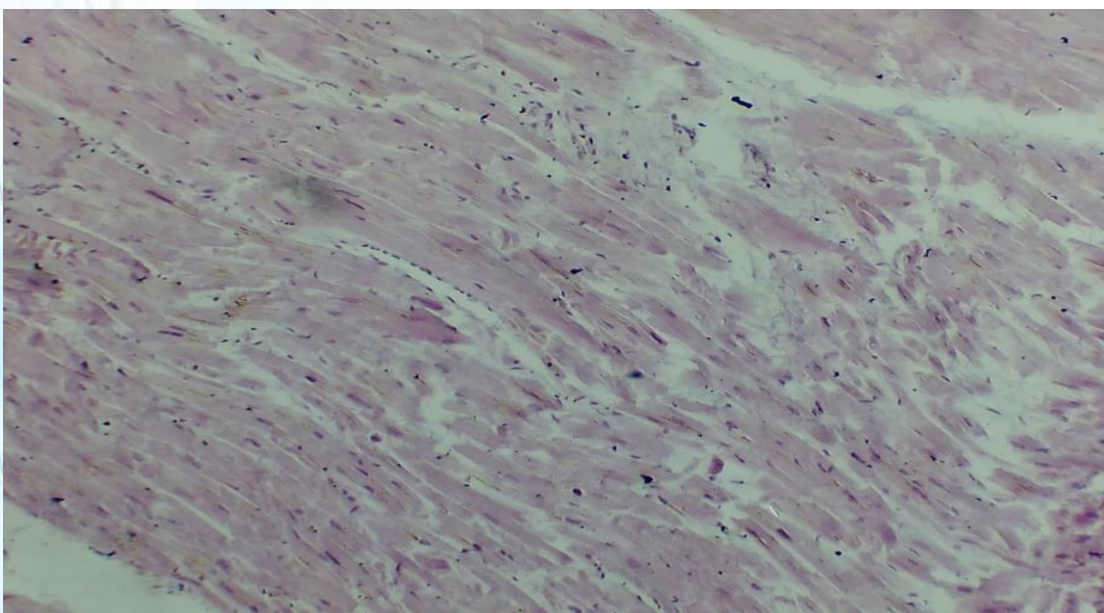


Figure 3. Weak neutrophil infiltration between cardiomyocytes, signs of fragmentation along some cardiomyocytes.

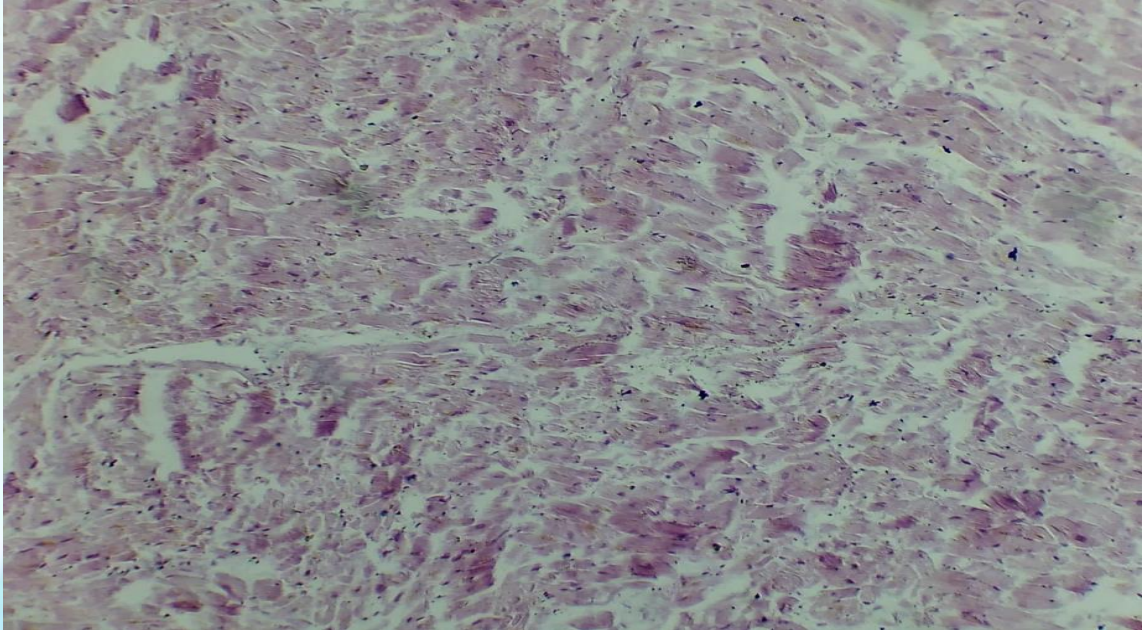


Figure 4. Swelling in the interval of cardiomyocytes, the presence of fragmentation, with weak neutrophil infiltration.

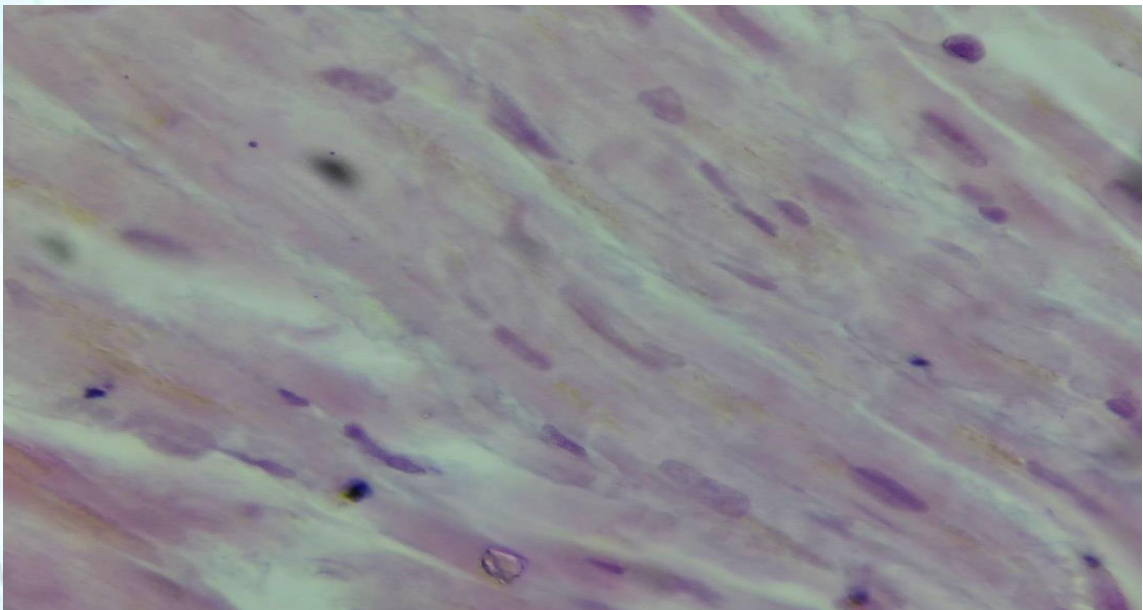


Figure 5. Symptoms of lipofuscinosis in cardiomyocytes, hypertrophy of cardiomyocytes.

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