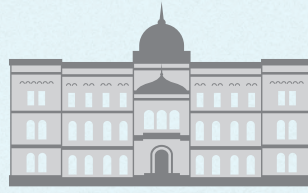


11<sup>th</sup> BALTIC  
**MORPHOLOGY  
MEETING**

NOVEMBER 13-15, 2024



ANATOMICUM, RIGA

# 11<sup>th</sup> Baltic Morphology Meeting

## ABSTRACT BOOK

November 13–15, 2024  
Rīga, Latvia



RĪGA STRADIŅŠ  
UNIVERSITY

Baltic Morphology 11<sup>th</sup> Meeting [November 13–15, 2024]: Abstract Book. – Rīga: Rīga Stradiņš University, 2024. – 98 p., including Author Index.

<https://doi.org/10.25143/rsu-balt-morf-11-meeting>

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(not in the alphabetical order)

Authors are responsible for the content of their abstracts

RSU IPD No. IPD-5115

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16 Dzirciema Street, Rīga, LV 1007

ISBN 978-9934-618-58-1 (printed edition)

ISBN 978-9934-618-59-8 (electronic edition, online)

## Cardiovascular paleopathology in Lithuanian historical populations: evidence from mummified and skeletal remains

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**Objectives.** This review aims to examine the prevalence of cardiovascular diseases in historical Lithuanian populations by analyzing published literature on mummified and skeletonized remains from the 17<sup>th</sup> to 19<sup>th</sup> centuries AD. Additionally, it seeks to understand the influence of genetic predispositions and environmental factors, such as diet and physical activity, on the development of cardiovascular diseases in these populations.

**Materials and methods.** The study focuses on mummified and skeletonized remains from crypts and subterranean chambers in Vilnius and Kėdainiai. Imaging of the mummified bodies was previously used to detect atherosclerotic changes, and further analysis of skeletal remains was conducted to identify evidence of cardiovascular pathology. Paleopathological, historical, and biomedical data were integrated to provide insights into cardiovascular diseases in these populations.

**Results.** Imaging revealed significant atherosclerotic changes in three adult mummies from Vilnius, suggesting that atherosclerosis was common among affluent individuals. Advanced cardiovascular pathology, such as aortic calcification and extensive calcification in the aorta, aortic valve, coronary arteries, and abdominal region, was observed in two mummified individuals from Kėdainiai. Additionally, skeletal evidence of an aortic aneurysm, including bone remodeling and sternal erosion, was identified in a high-status individual from the same site.

**Conclusions.** The findings suggest that lifestyle factors, such as diets rich in saturated fats and low levels of physical activity, contributed to the development of atherosclerosis, reflecting patterns observed in other ancient populations. Cardiovascular diseases like atherosclerosis and aortic aneurysms existed long before modern risk factors emerged. The integration of paleopathological, historical, and biomedical data emphasizes the role of both genetic predispositions and lifestyle in the development of cardiovascular diseases. Future research should focus on expanding sample sizes and incorporating genetic analyses to better understand the prevalence and etiology of cardiovascular diseases in the past.