



Obrazy v kardiologii | Images in cardiology

Lessons from the past: *Uremic pericarditis*

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SOUHRN

Uremická perikarditida, která kdysi byla jednou z hlavních příčin morbidity a mortality, představuje i nadále závažnou komplikaci terminálního selhání ledvin. Vzhledem k jejímu významu a závažnosti se toto onemocnění začalo znázorňovat na umělých modelech. Autoři upozorňují na význam exponátů vystavených v muzeu patologie v podobě voskových modelů, které byly zařazeny do učebních osnov pro mediky a mladé lékaře; exponáty ukazují na podobnost mezi srdcem osoby s fatálním průběhem onemocnění v nedávné době a voskovým modelem z 19. století.

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ABSTRACT

Uremic pericarditis, once a major cause of morbidity and mortality, continues to be a severe complication of end-stage renal disease. Its importance and gravity led to the disease illustration in artificial models. The authors highlight the importance of Pathology Museum specimens, namely "wax models", in the teaching curriculum of medical students and young doctors, by showing the similarity between the heart of a recent fatal case and a wax model from the XIXth century.

Uremic pericarditis, nowadays a disease with excellent prognosis and a survival rate of 85–90% [1,2], was once a major cause of morbidity and mortality. Although current incidence decreased to 5–20% [3,4], due to the improvement of acute and chronic renal failure therapy, timely diagnosis is crucial to avoid a fatal outcome.

The authors show two cases, a contemporary case from the Coimbra's Forensic Pathology Department of Medico-Legal and Forensic Sciences National Institute and a historical case from the Pathology Museum of the University of Florence. The contemporary case refers to a 58-year-old Caucasian male who died during hemodialysis treatment.

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The forensic post-mortem examination revealed diabetic nephropathy and typical uremic pericarditis (Fig. 1) as the cause of death.

The historical case refers to a wax model of a heart displaying "bread and butter", fibrinous pericarditis (Fig. 2). This specimen was produced by the skilful modeller Egisto Tortori (1829–1893), from the wax studio *La Specola* in Florence [5], at the time Richard Bright (1836) first described uremic pericarditis [3]. The scientific accuracy of this moulage makes it a unique, three-dimensional teaching tool for younger generations, thus highlighting the relevance of Pathology Museums for didactic purposes.

The etiology of uremic pericarditis remains unclear. Despite being less common, it continues to be a ma-

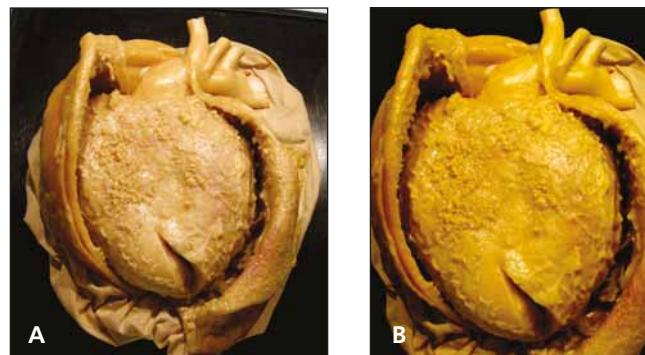


Fig. 2 – (A, B) Wax model by E. Tortori illustrating the irregular pericardial surfaces and the fibrinous adhesions of uremic pericarditis. Source: Pathology Museum, University of Florence.

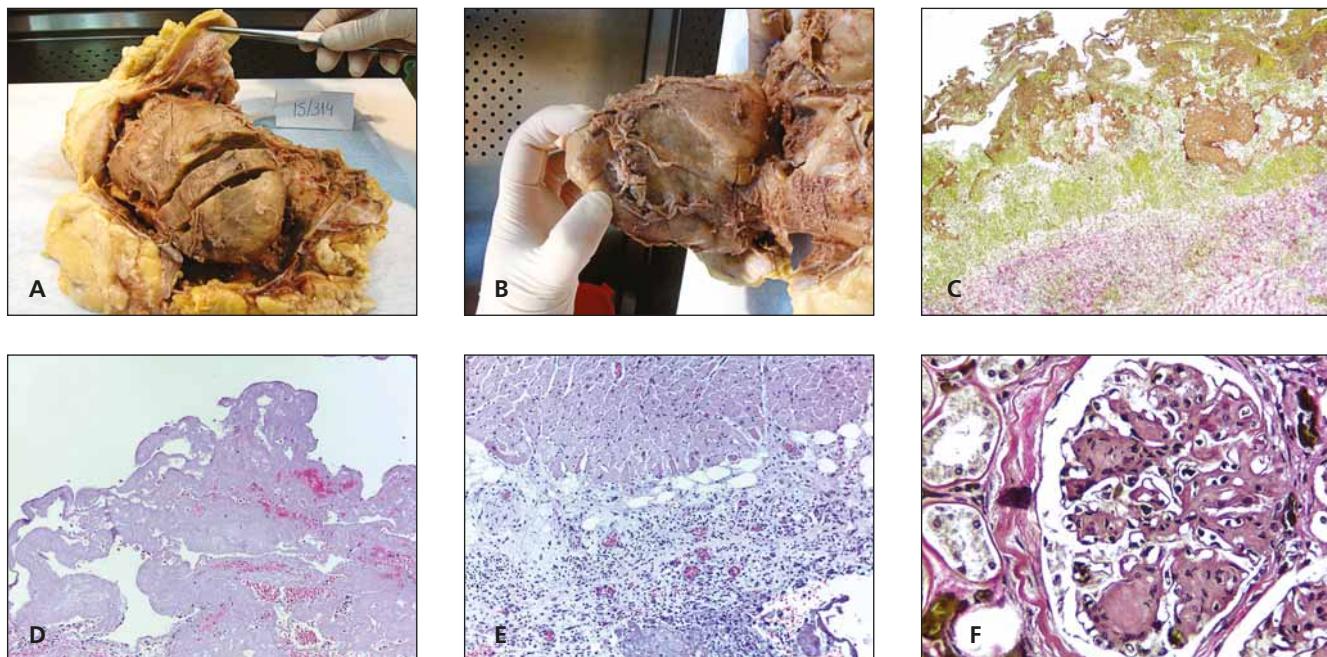


Fig. 1 – (A, B) Macroscopic views of uremic pericarditis, showing irregular pericardial surfaces caused by fibrinous adhesions between parietal and visceral pericardium – "bread and butter" pattern (source: INMLCF, I.P.). **(C-E)** Microscopic features of uremic pericarditis, demonstrating acute pericardial fibrinous inflammation (Parietal Pericardium – c: EvG 40x, d: H&E x100. Visceral Pericardium – e: H&E 100x) (source: INMLCF, I.P.). **(F)** Microscopic features of Kimmelstiel-Wilson nodular glomerulosclerosis (H&E 200x) (source: INMLCF, I.P.).

jor complication of end-stage renal disease. Therefore, young doctors and medical students should be familiar with its clinico-pathological features, in order to avoid under- or misdiagnosis, which would eventually lead to judicial consequences.

Conflict of interest

The authors declare no financial interests or other conflict of interest in relation to the work submitted.

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