Tuberculous pericarditis - diagnostic challenges

- Matias Trbušić^{1,2*}.
- Matej Nedić²,
- **©**Ozren Vinter^{2,3},
- **Olvan Turalija⁴**

¹University of Zagreb, School of Medicine, Zagreb, Croatia

- ²University Hospital Centre "Sestre milosrdnice", Zagreb, Croatia
- ³Catholic University of Croatia, School of Medicine, Zagreb, Croatia
- ⁴Special Hospital for Lung Diseases, Zagreb, Croatia

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*ADDRESS FOR CORRESPONDENCE: Matias Trbušić, Klinički bolnički centar Sestre milosrdnice, Vinogradska 29, HR-10000 Zagreb, Croatia. / Phone: +385-91-5062-986 / E-mail: matias.trbusic@gmail.com

ORCID: Matias Trbušić, https://orcid.org/0000-0001-9428-454X • Ozren Vinter, https://orcid.org/0000-0002-4236-7594 Matej Nedić, https://orcid.org/0000-0002-1148-6945 • Ivan Turalija, https://orcid.org/0009-0001-2892-1528

Introduction: Tuberculosis is uncommon in Croatia (\approx 6/100,000), and tuberculous pericarditis (TBP) occurs in only \sim 1% of cases, making it exceptionally rare. By contrast, in endemic areas such as North Africa, TBP accounts for up to 90% of effusive pericarditis. ¹⁻³ The rarity in low-incidence countries often delays diagnosis and increases complications and mortality. Establishing the diagnosis is particularly challenging because the clinical presentation is atypical and not accompanied by the usual indicators of active tuberculosis, as in our patient. In this context, echocardiography and computed tomography (CT) play a key role in raising the initial suspicion.

Case report: We report a 78-year-old patient admitted with pericardial effusion after three months of progressive fatigue and exertional dyspnea, without fever or chest pain. Past history included arterial hypertension. Multislice CT revealed pericardial thickening with fat stranding, mediastinal lymphadenopathy, calcified hilar nodes, and fibrotic lung changes. Echocardiography confirmed pericardial thickening with extensive deposits, mild effusion, and impaired filling. Pericardiocentesis yielded cloudy yellow fluid, exudative and lymphocytic (LDH per/ser 16.4; protein per/ser 0.8). The adenosine deaminase (ADA) test was markedly elevated (78.1 U/L), and polymerase chain reaction (PCR) test for Mycobacterium tuberculosis confirmed TBP. Standard anti-tuberculous therapy (isoniazid, rifampicin, pyrazinamide, ethambutol) was initiated. We decide to start with corticosteroids to reduce the risk of constriction despite unclear guidelines and the conflicting position in literature. Workup excluded active pulmonary disease, indicating reactivation of latent infection without obvious risk factors beyond advanced age.

Conclusion: TBP remains a rare but potentially underrecognized diagnosis in Croatia. Isolated forms can be subtle, with nonspecific symptoms and no overt pulmonary disease. Clinical suspicion is essential, particularly as immigration from high-incidence countries rises. Pericardiocentesis is the cornerstone of diagnosis, allowing rapid confirmation through ADA and PCR, while culture provides definitive proof. Early recognition and timely treatment are critical to prevent progression to constrictive pericarditis and improve patient outcomes.

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- Isiguzo G, Du Bruyn E, Howlett P, Ntsekhe M. Diagnosis and Management of Tuberculous Pericarditis: What Is New? Curr Cardiol Rep. 2020 Jan 15;22(1):2. https://doi.org/10.1007/s11886-020-1254-1
- Corticosteroids in tuberculous pericarditis whit severe pericardial effusion to avoid constriction: a retrospective study in HIV-negative population. Eur Heart J. 2021 Oct;42 Suppl 1:ehab724.1830. https://doi.org/10.1093/eurheartj/ehab724.1830
- Howlett P, Du Bruyn E, Morrison H, Godsent IC, Wilkinson KA, Ntsekhe M, Wilkinson RJ. The immunopathogenesis of tuberculous pericarditis. Microbes Infect. 2020 May-Jun;22(4-5):172-181. https://doi.org/10.1016/j.micinf.2020.02.001