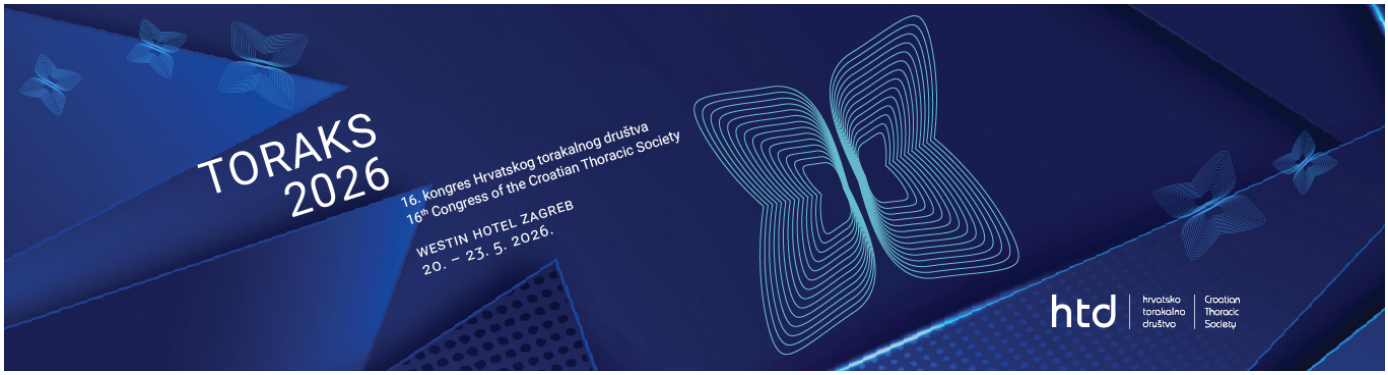


SARCOID-LIKE REACTION INDUCED BY IMMUNOTHERAPY IN A PATIENT WITH METASTATIC MELANOMA: A CASE REPORT

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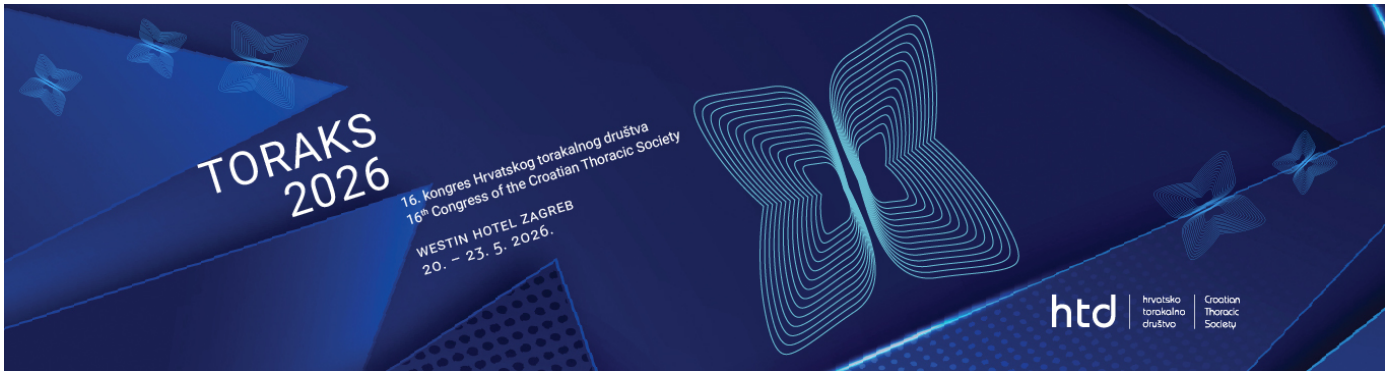
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Objective:

Introduction: Immunotherapy with immuno checkpoint inhibitors has enabled significant progress in the treatment of patients with metastatic melanoma. Such therapy activates the immune system to attack tumor cells, but this increased reactivity can cause immune-related adverse events. Among the rarer are granulomatous reactions similar to sarcoidosis that can mimic tumor progression radiologically and clinically.

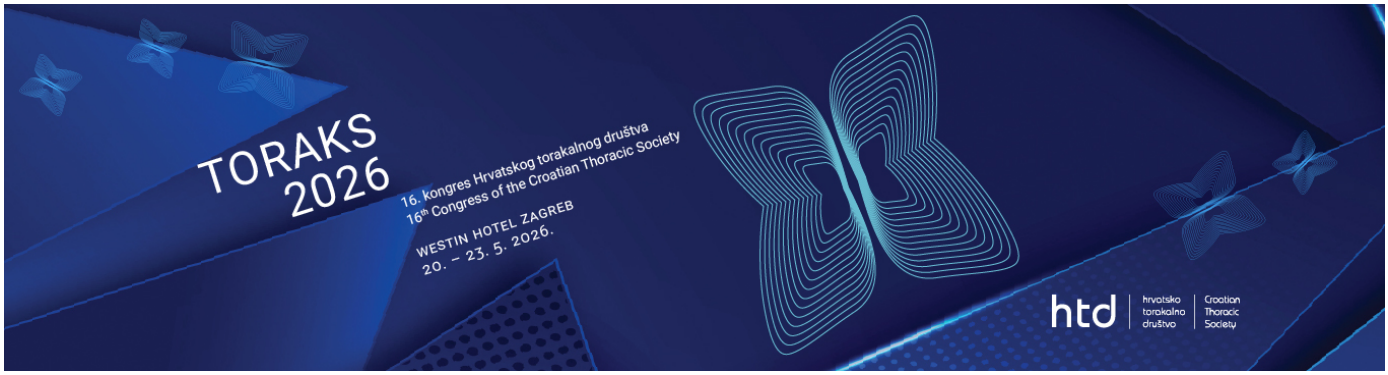
Case presentation: A 55-year-old man was diagnosed with nodular melanoma in 2022. Initially, he underwent surgical excision and was treated with pembrolizumab. After six cycles, he noticed red spots on his scars and developed new respiratory symptoms. A chest X-ray was performed and showed bilateral infiltrates. Based on computerised tomography (CT) findings, sarcoidosis was diagnosed.



Treatment with oral prednisolone was started with clinical and radiological regression of changes. In 2025, due to melanoma relapse, treatment with nivolumab was started and later combined with ipilimumab. A few months later, thorax multislice computed tomography (MSCT) showed new infiltrates with differential diagnoses of metastasis and sarcoidosis. Immunotherapy was postponed and flexible bronchoscopy with transbronchial lung biopsy was performed. Histopathological specimens showed non-caseating granulomas without evidence of tumor. Histochemical stains (PAS, GMS, Ziehl-Neelsen) and microbiological cultures were negative. Laboratory findings showed elevated angiotensin converting enzyme (ACE) (103 U/L) and mildly elevated CRP, lung function showed mildly reduced diffusion capacity for carbon monoxide. Based on the granuloma morphology, temporal association with immunotherapy, and exclusion of infection, immunotherapy-induced sarcoid-like reaction was diagnosed. Treatment with prednisolone and discontinuation of immunotherapy led to clinical and radiological improvement.

Conclusion: In patients receiving immunotherapy with new-onset pulmonary infiltrates and lymphadenopathy, a sarcoid-like reaction should be suspected. Timely identification and treatment (administration of corticosteroids and adjustment of immunotherapy) enable symptom control and optimisation of oncological treatment.

Key words: Immunotherapy; Ipilimumab; Melanoma; Nivolumab; Sarcoidosis


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