

## CASE REPORT

## Beyond the Obvious: Unveiling the Diagnosis When Symptoms Mislead

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**Abstract.** Persistent inflammatory syndrome is a frequently encountered and challenging condition in internal medicine. In cases when a definitive diagnosis is not established, this disease necessitates a thorough diagnostic approach to rule out infections, autoimmune disorders, and cancers.

**Case presentation:** We present the case of an asymptomatic patient hospitalized with a significant inflammatory syndrome, in whom initial infection screening failed to reveal any diagnosis that might account for the biological abnormalities. In the lack of a diagnosis and the persistence of the inflammatory condition despite broad-spectrum antibiotic therapy, computed tomography examination of the chest, abdomen, and pelvis with contrast substance was performed, which identified a lung lesion with malignant features. The diagnostic management continued by bronchoscopy, bronchoalveolar lavage, and cytological, bacteriological, and molecular examinations, which revealed the presence of *Mycobacterium tuberculosis*.

**Conclusions:** This case contributes to the understanding of tuberculosis as an “oncologic mimic” in cases of unexplained prolonged inflammatory syndrome, underscor the value of rigorous diagnostic approaches in atypical presentations and emphasizing the diagnostic vigilance required in patients with risk factors for this infectious disease.

**Keywords:** persistent inflammatory syndrome, tuberculosis, diagnosis, oncological mimic

### 1. INTRODUCTION

Tuberculosis (TB) remains a significant global health challenge, with recent reports highlighting the resurgence of the disease as the leading infectious cause of mortality worldwide [1]. According to the 2024 global tuberculosis report by the World Health Organization (WHO), the number of new cases reached 8.2 million in 2023, a stark increase from previous years [1]. In 2023, 55% of individuals diagnosed with

tuberculosis were male, 33% female, and 12% children and early adolescents [1]. This trend places this disease at the forefront of global health concerns, surpassing even COVID-19 in its impact on public health [1]. The same report also emphasizes the disproportionate burden experienced by low- and middle-income countries, which account for 98% of the global tuberculosis cases [1]. Socioeconomic factors, including poverty, inadequate healthcare infrastructure, malnutrition, and comorbidities such as