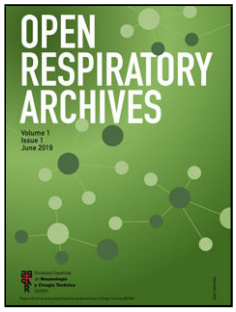
Journal Pre-proof



Hemoptysis in a Young Man with Behçet's Disease

Ana Fernandes Nuno Santos Miguel Castro

PII: S2659-6636(25)00160-2

DOI: https://doi.org/doi:10.1016/j.opresp.2025.100536

Reference: OPRESP 100536

To appear in: *Open Respiratory Archives*

Received Date: 20 October 2025

Accepted Date: 7 December 2025

Please cite this article as: Fernandes A, Santos N, Castro M, Hemoptysis in a Young Man with Behçet's Disease, *Open Respiratory Archives* (2025), doi: https://doi.org/10.1016/j.opresp.2025.100536

Authorship File

Article type: Clinical Image

Title: Hemoptysis in a Young Man with Behçet's Disease

Authors:

Ana Fernandes[a], Nuno Santos[b], Miguel Castro[b]

[a] Pulmonology Department, Algarve Local Health Unit, Faro, Portugal

[b] Radiology Department, Algarve Local Health Unit, Portimão, Portugal

Corresponding author:

Ana Rita Fernandes

e-mail: rita_fernandes80@hotmail.com

Pulmonology Department, Algarve Local Health Unit, Faro, Portugal

Rua Leão Penedo, 8000-836 Faro

Other authors:

Nuno Barbosa Santos

e-mail: nunobarbosasantos@gmail.com

Miguel Oliveira e Castro

e-mail: migkastro@gmail.com

A 20-year-old man with a family/personal history of recurrent oral/genital ulcers and erythema nodosum–like lesions, with suspected diagnosis of Behçet's disease (BD), presented with a one-month history of cough, mild hemoptysis and pleuritic chest pain. Laboratory tests revealed elevated C-reactive protein. Chest radiography showed

large, bilateral, rounded hilar opacities (Fig. 1a). Chest CT angiography demonstrated multiple bilateral saccular pulmonary artery aneurysms (PAA)(Fig. 1b), the largest measuring 6 cm, with a central contrast-enhancing component similar to adjacent vessels (Fig. 1c). The patient received intravenous methylprednisolone (1 g/day for three days) and cyclophosphamide, followed by oral corticosteroids. During outpatient corticosteroid tapering, he experienced two further episodes of hemoptysis requiring hospitalization, so immunosuppressive therapy was escalated to infliximab and azathioprine, achieving sustained clinical and radiological remission over five years (Figure 1d). BD is a systemic vasculitis of unknown etiology that predominantly affects young males and is characterized by recurrent oral/genital ulcers and uveitis.[1-5] Large-vessel involvement indicates severe disease and may manifest as vessel dilation or thrombosis.[1,2] PAA occurs in approximately 5% of BD cases[1-4] and should be suspected in patients with hemoptysis, as mortality can exceed 50%.[3,5] Early recognition and prompt immunosuppressive therapy are essential to prevent aneurysm rupture and reduce mortality.[1-5]

Informed Consent

Written informed consent was obtained from the patient for the publication of this clinical image.

Funding of the Research

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflicts of interest of every author

The authors declare not to have any conflicts of interest that may be considered to influence directly or indirectly the content of the manuscript.

Artificial intelligence involvement

None of the material produced for this article had the help of any artificial intelligence software or tool.

Author contribution

Dra Ana Fernandes was responsible for bibliographical research, writing the text, images processing and article submission.

Dr. Nuno Santos was responsible for bibliographical research, writing the text and processing images.

Dr. Miguel Castro was the radiologist whom collected the images, revised the scientific content, the text and the images processing.

References

1. Sorouri S, Farmad MS, Amiriani A, Baniasad A. Pulmonary Artery Aneurism in Behçet´s Disease Presenting With Recurrent Hemoptysis: A Case Report. Clin Case Rep. 2025; 13:e70663. doi:10.1002/ccr3.70663
2. Ishibashi H. What is vascular Behçet's disease? Ann Vasc Dis. 2018; 11(1):52-56. doi:10.3400/avd.ra.18-00002
3. Aikins KA, Anderson ZN, Bosse BL, Knoles S. Pulmonary artery involvement in Behçet's disease: A challenging case and comprehensive management approach. Radiol Case Rep. 2024;19:2093-2096. doi:10.1016/j.radcr.2024.02.054
4. Ez-zaky S, Laasri I, Jroundi L, Laamrani FZ. Dyspnea and hemoptysis revealing Behçet´s syndrome: Pulmonary artery aneurysms in a case report. Radiol Case Rep. 2025;20:115-118. doi:10.1016/j.radcr.2024.09.110
5. Al-Yacopy AA, Alhatemi AQM, Hashim HT, Al-Obaidi AD, Abdulhusain R. Pulmonary Artery Aneurysm in Behcet's Disease Manifesting as Haemoptysis: A Case Report and Literature Review. Oxf Med Case Rep. 2024;8:375-380. doi:10.1093/omcr/omae097

Fig. 1 (a) Chest radiography showing large, bilateral, rounded opacities in the hilar regions, (b) Chest CT angiography demonstrating multiple bilateral saccular pulmonary artery aneurysms, (c) Chest CT angiography showing a pulmonary artery aneurysm, measuring 6 cm, with a central contrast-enhancing component and a peripheral hypodense rim, (d) Follow-up chest CT showing sustained complete resolution of pulmonary artery aneurysms over a five-year follow-up period.