

Massive Bronchial Artery Hypertrophy Diagnosed by Aortography in Recurrent Hemoptysis

Hypertrophie massive de l'artère bronchique diagnostiquée par aortographie dans un contexte d'hémoptysie récurrente

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A 69-year-old male smoker presented with two recent episodes of mild hemoptysis. Evaluation included thoracic aortography, which dramatically revealed a strikingly hypertrophied and tortuous right bronchial artery, measuring 1.8 mm in diameter (Figure 1).



Figure 1. Axial thoracic aortography demonstrating massive hypertrophy and tortuosity of the bronchial artery (arrows). The high-resolution imaging clearly identifies the vascular culprit, providing a definitive roadmap for selective embolization.

This finding, which significantly exceeds the typical diagnostic threshold for bronchial arteries, is diagnostic of a high-flow vascular source for the bleeding [1,2]. Concurrently, moderate lymphadenopathy (4R, 7, 10R) prompted Endobronchial Ultrasound (EBUS)-guided Transbronchial Needle Aspiration, which successfully ruled out malignancy and tuberculosis [3]. Following the exclusion of infectious and neoplastic etiologies, including pulmonary tuberculosis, aspergillosis, and

bronchogenic carcinoma, primarily through EBUS-guided cytologic analysis and clinical evaluation, the patient underwent definitive treatment via selective bronchial artery embolization [4]. The post-procedural course was uneventful, with no recurrence of hemoptysis.

This case illustrates the critical role of aortography in providing exceptional diagnostic clarity for identifying the vascular source of the hemoptysis and the necessity of a multimodal approach—including EBUS—in addressing associated diagnostic challenges before definitive treatment [1-5].

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