Relapsing Polychondritis Followed Up with FDG-PET

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A 68-year-old man complaining of a chronic wet cough presented to our department. A chest CT scan showed wall thickening in the trachea, and bronchoscopy demonstrated edematous changes and stenosis in the bilateral bronchi. The serum level of anti-type II collagen antibodies was markedly elevated at 159.9 EU/mL (normal range: <25). Although the patient’s condition did not meet the classical criteria for relapsing polychondritis (RP), he was diagnosed with possible RP based on a positive uptake on $[^{18}F]$-fluorodeoxyglucose positron emission tomography (FDG-PET) (Picture). After six months of prednisolone therapy, his respiratory symptoms and the inflammation in the trachea resolved (Picture).

RP is an autoimmune disease without an apparent etiology that causes recurrent episodes of chondritis, primarily in the auricular, nasal and laryngotracheal cartilage (1). Due to its rarity and wide disease spectrum, confirming the diagnosis is often difficult, especially in patients with few clinical manifestations. Our patient showed only tracheal chondritis on FDG-PET (2). In patients with an unexplained persistent cough, RP may be included in the differential diagnosis. FDG-PET is also useful for making the diagnosis in such cases.

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References
