Pulmonary actinomycosis and Hodgkin's disease: when FDG-PET may be misleading

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We present a patient with advanced Hodgkin's disease treated with escalated BEACOPP chemotherapy. The result from the interim fluorodeoxyglucose positron emission tomography with CT (PET-CT) after two cycles of chemotherapy is crucial for treatment guidance for the clinical trial HD18 from the German Hodgkin Study Group. An increase in size and standard uptake value (SUV) of a pulmonary lesion suggesting refractory Hodgkin's disease was documented. Since all other manifestations of the lymphoma responded well to the treatment, the discordant behaviour was suspicious for another reason for this progressive pulmonary lesion. Bronchoscopy revealed Actinomyces species in cultures from bronchial washings. Specific treatment was initiated and consisted of 2 weeks of intravenous penicillin followed by ceftriaxone intravenous for another 4 weeks and subsequent oral amoxicillin to complete 12 months of antibiotic therapy. For the Hodgkin's lymphoma, complete remission was documented after a total of six cycles of escalated BEACOPP.