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Occult Hodgkin lymphoma presenting as polymyalgia rheumatica: value of [(18)F]-FDG positron emission tomography

C. Durant · B. Hervier · C. Ansquer · A. Masseau · M. Hamidou

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Dear Editor,

Polymyalgia rheumatica (PMR) is frequently associated with giant cell arteritis (GCA). It has rarely been reported as a paraneoplastic syndrome. We report a case of occult Hodgkin's lymphoma presented as PMR. After negative results with large and costly investigations, [(18)F]-FDG positron emission tomography (PET) helped with the diagnosis.

A 56-year-old woman, without any significant disease, presented with polyarthralgia. She had, for 6 months, rhizomelic pains associated with fever (38.5°C). She denied weight loss or sweating. Physical examination also revealed myalgia and finger tenosynovitis. There was no adenopathy or hepatosplenomegaly. Laboratory analysis revealed 8.8 g/dl haemoglobin and a leukocyte count of 16,600/mm³. C-reactive protein was elevated at 97 mg/l. Creatine phosphokinase was normal. Blood cultures and serology for cytomegalovirus, Epstein–Barr virus, *Mycoplasma pneumoniae*, brucellosis, hepatitis virus and human immunodeficiency virus were negative, as were antinuclear and anticytoplasmic neutrophilic antibodies. Chest X-ray, echocardiography and total computed tomography were normal. Gastro-duodenal and pulmonary fibroscopy was negative. Bone marrow aspiration, tempo-

ral artery, salivary glands and osteomedullar biopsies were negative. A diagnosis of PMR was given. Steroids were started at 20 mg/day but were not effective. Prednisone 1 mg/kg/day controlled symptoms within 24 h of treatment and was effective during the first 4 months. As the patient remained dependent on high-dose steroids (prednisone 20 mg/day), biological and radiological tests were performed a second time. Since they were normal, PET was performed. It showed a single cervical hypermetabolic fixation due to subclinical adenopathy (Fig. 1). A surgical biopsy diagnosed a nodular lymphocyte-predominant Hodgkin's lymphoma. As a result of this localised Hodgkin's lymphoma, ABVD chemotherapy was begun (doxorubicin, bleomycin, vinblastine, dacarbazine), associated with steroid withdrawal. Chemotherapy improved articular symptoms and led to 3 years complete remission of both haematological disease and paraneoplastic syndrome.

Paraneoplastic syndromes are rare and generally associated with solid tumours. Hypertrophic osteoarthropathy, acute polyarticular polyarthritis, seronegative rheumatoid arthritis and Remitting Seronegative Symmetrical Synovitis with Pitting Edema are the most frequently reported. Classical PMR is usually associated with giant cell arteritis. In view of an unusual presentation (weight loss, fever or corticoid dependency), neoplasia has to be carefully considered, because PMR without GCA can precede neoplasia for many months [1]. Indeed, paraneoplastic PMR occurs during solid neoplasia and myelodysplastic syndromes but has been reported rarely in the course of lymphomas. To our knowledge, only two cases have been reported in the literature [2]. PET might be useful in paraneoplastic syndromes to screen for primitive neoplasia [3–5]. Even though PET has been used effectively in neurological

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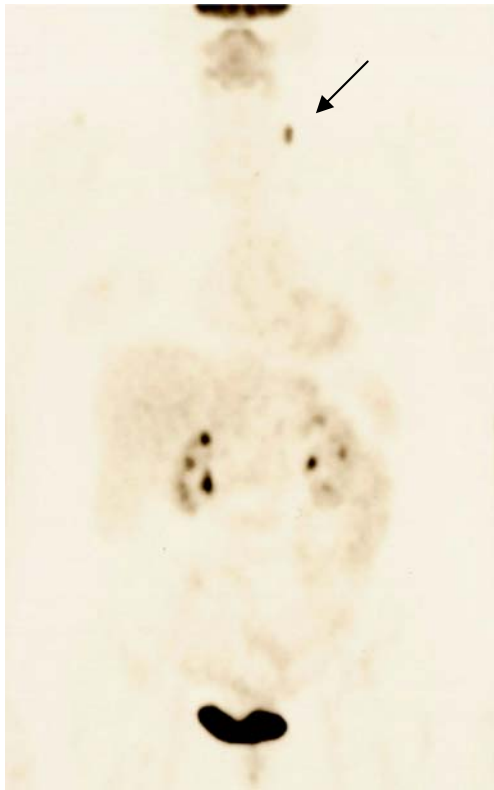


Fig. 1 [(18)F]-FDG-PET: Intense single cervical hyperfixation revealing Hodgkin's disease (*arrow*)

paraneoplastic syndromes, data are missing for other diseases. In our case, all the diagnostic investigations were negative, and PET led to diagnosis.

To the best of our knowledge, the association of paraneoplastic PMR and occult Hodgkin's lymphoma is particularly rare. Our observations illustrate the contribution of PET in rheumatic paraneoplastic syndromes.

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