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Letter to the Editor

Pneumocystis Jirovecii Pneumonia and Neurosyphilis Occurring in a Patient with Iatrogenic Immunosuppression

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A 22-year-old Caucasian man was admitted to the Emergency with severe hypoxemic respiratory failure. Physical examination revealed non-pruritic papules and plaques with a brownish color, localized to the flexures (axillae, groin, antecubital, popliteal fossae) (Figure 1: A-C) and to the palms and soles. He also had a posterior uveitis and a lumbar puncture was made.

He had a history of psoriasis, diagnosed last year in a Private Dermatology Consultation. He denied unprotected sexual intercourse and any signs of primary or secondary syphilis. He received cyclosporine for six months and it was stopped two months before the beginning of the symptomatology and he was then treated with etanercept, with a good control of his dermatosis.

On admission, laboratory examination demonstrated a leukocytosis (white blood cell count: 12,7x103/ul, with 88, 2% neutrophil) and a C-reactive protein of 52,40 mg/L. The serologies of syphilis were positive: (venereal disease research laboratory [VDRL]):1/32 and (treponema pallidum particle agglutination assay [TPHA]): 1/1256. The serologies of B and C hepatitis, human immunodeficiency virus (HIV) 1 and 2 were negative. Histopathological examination of a lesion taken from the left axilla revealed an in specific lymphohistiocytic inflammation.

High resolution CT showed ground-glass opacification bilaterally (Figure1: D). At fibrotic bronchoscope the endo bronchial appearance was normal. Bronchial washings were cytologically and normal and we detected *Pneumocystis Jirovecii* in bronchoalveolar lavage by polymerase chain reaction (PCR). Taken together, clinical and imagiologic data suggested a diagnosis of *Pneumocystis Jirovecii* pneumonia (PcP). The patient was treated with cortico therapy 40 mg/ day, with a progressive weaning and high-dose intravenous co-trimoxazole, with good response and he was then discharged on oral therapy 7 days after and completed 21 days of anti biotherapy with good response.

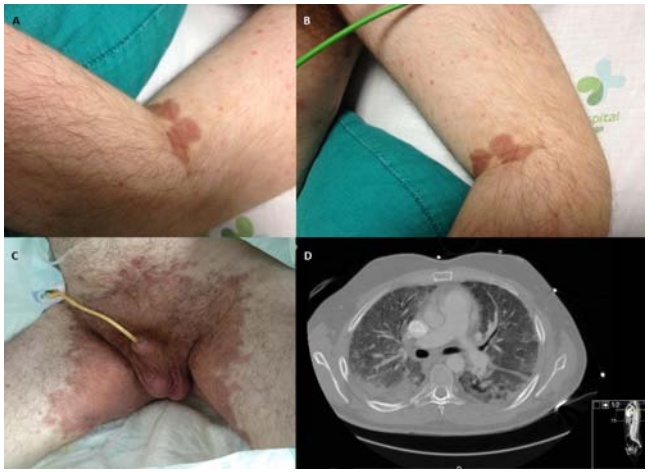

Figure 1: (A), (B), (C) Papules with a brownish color localized on antecubital flexure and groin. (D)Ground-glass opacification bilaterally on high resolution thoracic CT.

Cerebral spinal fluid analysis revealed: glucose 105mg/dl, total protein 0,97g/L, VDRL 1/32 and a positive TPHA 1/2560. It was decided to treat the patient as a neurosyphilis, despite the lack of strong arguments for a neurologic involvement.

The patient was treated for two weeks with penicillin G (4 million units intravenously every 4 hours).

PcP is an infectious disease, which may occur early in the course of etanercept therapy [1,2]. It is one of the commonest acquired immunodeficiency syndrome (AIDS) defining illnesses [3]. PcP is also seen in other forms of immunosuppression, including malignancies or after organ transplantation [1,2]. The incidence of PcP secondary to anti-TNF therapy is approximately 0,01% [1]. Mortality due to PcP is higher in immune competent patients, exceeding 50% [1,2].

Uveitis is the most frequent lesion of ocular syphilis and the meninges and the central nervous system can be affected, sometimes with no symptoms, which justifies performing lumbar puncture (LP) in patients with uveitis, given its frequent association with neurosyphilis [4,5]. Lumbar puncture must be repeated every 6 months until cell counts normalize [5].

The severity of the PcP in our patient highlights the importance of the clinician´s awareness of this opportunistic infection in patients treated with immunosuppressive drugs and biologic therapy [1,2]. Given the increase of syphilis, it is important to do a syphilitic serology, particularly in patients with cutaneous non-purity unspecific lesions, including palms and soles, even when the patient has the diagnosis of other dermatosis, including psoriasis [5].

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