Severe bout of cutaneous psoriasis in a patient with psoriasic arthritis undergoing treatment with infliximab

Sirs,
Infliximab, anti-TNF-α chimeric monoclonal antibody, has recently demonstrated its efficacy and safety in treating active (PsA) psoriasic arthritis dermatological and articular manifestations likewise dermatological lesions in psoriasis vulgaris (1, 2) having recently been approved as treatment in both cases. Described below is the "paradoxical" case of a patient who suffered a generalized bout of psoriasis while undergoing treatment with infliximab.
Male, aged 41, diagnosed with psoriasic spondyloarthropathy 20 years earlier with daily axial pain and severely limited mobility. He had presented plaque psoriasis with slight-moderate affectation since he was 14, although he had received no specific treatment due to the minor presence of his ailment. He began treatment with infliximab iv 5 mg/kg as per standard dosage and his usual NSAI. The patient's articular symptoms greatly improved from the first infusion, with his cutaneous lesions almost totally disappearing.
One week after the 3rd infusion, he presented a generalized outbreak of psoriasis, initially affecting his feet and subsequently extending to practically the entire corporal surface, accompanied by pruritis and oedemas on lower limbs. He presented a good general state without fever and blood pressure 120/70. Laboratory tests showed an ESR 49mm/hour, CRP 6'8 mg/L, complete blood count, creatinine, hepatic enzymes within normal range, C3 and C4 within normal range. A cutaneous biopsy was performed whose anatomopathological description was: subacute pseudopsoriasiform dermatitis. Treatment with Infliximab was suspended, and he was treated with 15 mg methotrexate weekly, antihistamines, topical steroids and emollients. The patient slowly recovered returning to his original state in 4 months.
Among the most frequently described cutaneous side-effects with infliximab are: delayed hypersensitivity reactions, multiform erythema, leukocytoclastic vasculitis, lupus-type syndrome.
Reappearance of psoriasis undergoing treatment with anti TNF-α (paradoxical adverse reaction), likewise worsening of pre-existing conditions, has recently been described by several authors (Table I), and using the three anti-TNF-α available. In all cases, the appearance of psoriasis was considered the adverse effect of an unknown mechanism.
Our patient previously presented chronic stable psoriasis and we suppose treatment with infliximab influenced his severe bout.
Psoriasis is an autoimmune chronic recurring disease affecting 1 - 3% of the population. Genetic predisposal of Ps has been the object of many studies (10). The earliest studies on the immunological mechanisms of Ps evidenced the role of T lymphocytes in Ps with an increase in Th1 cytokines. Subsequent studies have demonstrated the central role played by innate immunity in the pathogenesis of psoriasis (11), with an increase of innate immune response humoral components, complement activation, elevation of chemokines like IL-8 and an increase in pro-inflammatory cytokines, among which TNF-α is one of the most important. (12)
Anti-TNF-α treatment is one of the possible strategies for treating this illness, in addition to other biological treatments aimed at other targets. We are unaware of the mechanism whereby infliximab led to the worsening of our patient's psoriasis. Further studies are required to explain "paradoxical" phenomena of this kind.

Table I.

Author		Total no. patients	Recently appeared psoriasis	Worsening	Base illness
Sfikakis[3]	(2005)	5	Yes		RA-2, AS-2, ABD-1
Dereure[4]	(2004)	2	Yes		RA-2
Verea[5]	(2004)	1	Yes		Crohn's disease -1
Thurber[6]	(2004)	1	Yes		Chronic ulcerative colitis – 1
Kary[7]	(2004)	8	Yes	Yes-3	RA-8
Haibel[8]	(2004)	4	Yes	Yes-2	AS-4
Baeten[9]	(2003)	3	Yes		AS-3

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References

1. ANTONI CE, KAVANAUGH A, KIRKHAM B *et al.*: Sustained benefits of infliximab therapy for dermatologic and articular manifestations of psoriatic arthritis. *Arthritis Rheum* 2005; 52: 1227-36.
2. CHAUDHARI U, ROMANO P, MULCAHY LD *et al.*: Efficacy and safety of infliximab monotherapy for plaque-type psoriasis: a randomised trial. *Lancet* 2001; 357: 1842-47.
3. SFIKAKIS PP, ILIOPOULOS A, ELEZOGLOU A *et al.*: Psoriasis induced by anti-tumor necrosis factor therapy. *Arthritis Rheum* 2005; 52 : 2513-8.
4. DEREURE O, GUILLOT B, JORGENSEN C, COHEN JD, COMBES B, GUILHOU JJ: Psoriatic lesions induced by antitumour necrosis factor-α treatment: two cases. *Br J Dermatol* 2004; 150: 506-25.
5. VEREA, DEL POZO MM, YEBRA-PIMENTEL J, PORTA A, FONSECA E: Psoriasiform eruption induced by infliximab. *Ann Pharmacother* 2004; 38 : 54-7.
6. THURBER M, FEASEL A, STROEHLEIN J, HYMES SR: Pustular psoriasis induced by infliximab. *J Drugs Dermatlo* 2004; 3: 439-40.
7. KARY S, WORM M, FRITZ J *et al.*: New onset or aggravation of psoriatic skin lesions in patients with definite rheumatoid arthritis under treatment with TNF-α antagonists: report of eight cases [abstract]. EUROPEAN LEAGUE AGAINST RHEUMATISM: Annual European Congress of Rheumatology, Berlin, Germany, June 9-12, 2004. Abstract no. FRI0095. URL: www.eular.org.
8. HAIBEL H, RUDWALEIT M, STRASSER C, SPILLER I, DORNER T, SIEPER J: Unexpected new onset or exacerbation of psoriasis in treatment of active ankylosing spondylitis with TNF-α-blocking agents; four case reports [abstract]. EUROPEAN LEAGUE AGAINST RHEUMATISM: Annual European Congress of Rheumatology, Berlin, Germany, June 9-12, 2004 .Abstract no. SAT0061. URL: www.wular.org.
9. BAETEN D, KRUITHOF E, VAN DEN BOSCH F *et al.*: Systematic safety follow up in a cohort of 107 patients with spondyloarthropathy treated with infliximab: a new perspective on the role of host defence in the pathogenesis of the disease? *Ann Rheum Dis* 2003; 62: 829-34.
10. CAPON F, TREMBATH RC, BARKER JNWN: An update on the genetics of psoriasis. *Dermatol Clin* 2004; 22: 239-47.
11. BOS JD, DE RIE MA, TEUNISSEN MB, PISKIN G: Psoriasis: dysregulation of innate immunity. *Br J Dermatol* 2004; 152: 1098-107.
12. GRIFFITHS CEM, IACCARINO L, NALDI L: Psoriasis and psoriatic arthritis: Immunological aspects and therapeutic guidelines *Clin Exp Rheumatol* 2006; 24: S-72–S-78.