radiological data to support this hypothesis. Furthermore, the patient was not treated with antituberculous drugs and the cutaneous lesions healed with topical corticosteroid therapy alone.

In conclusion, we describe the case of a patient who presented an episode consistent with generalized pustular psoriasis after a tuberculin test, a possible trigger not previously reported in the literature.

References

1. Cassandra M, Conte E, Cortez B. Childhood pustular psoriasis elicited by the streptococcal antigen: a case report and review of the literature. Pediatr Dermatol. 2003;20:506-10.
2. Sánchez MC, Rocamora V, Amengual I. Psoriasis pustulosa anular. Actas Dermosifiliogr. 2002;93:607-8.
3. Jo JH, Jang HS, Ko HC, Kim MB, Oh CK, Kwon YW, et al. Pustular psoriasis and the Kobner phenomenon caused by allergic contact dermatitis from zinc pyrithione-containing shampoo. Contact Dermatitis. 2005;52: 142-4.
4. Wu JK, Siller G, Strutton G. Psoriasis induced by topical imiquimod. Australas J Dermatol. 2004;45:47-50.
5. Weiss G, Shemer A, Trau H. The Koebner phenomenon: review of the literature. J Eur Acad Dermatol Venereol. 2002;16:241-8.
6. Chowaniec O. Koebner's phenomenon in psoriasis. III. Development of psoriatic papula following intracutaneous injection of tuberculin in the light of clinical and histological studies. Przegl Dermatol. 1977;64:549-54.

Psoriatic Erythroderma Treated with Etanercept

E Piqué-Duran and JA Pérez-Cejudo

Sección de Dermatología, Hospital General de Lanzarote, Spain

To the Editor:

The recent introduction of biological therapy has revolutionized the therapeutic management of psoriasis. Various studies demonstrating the efficacy and safety of these treatments have been published.[1-4] However, practically all of them studied patients with moderate-to-severe plaque psoriasis and, therefore, there is little experience with "special" clinical forms of psoriasis, including psoriatic erythroderma.

We describe a 69-year-old woman with a history of depression, osteoporosis, and hypertension, with no known drug allergies, who was diagnosed with psoriasis in 1989. Since 1995, rotational therapy had been provided with systemic medication.

In December 2004, she developed erythroderma with severe erythema, skin edema, and fever. The score on the Psoriasis Area and Severity Index (PASI) was 55/72. At that time, she was receiving cyclosporin at a dose of 4 mg/kg/d. Treatment was initiated with support measures that included plenty of fluids, a high-calorie, high-protein diet, and antibiotic coverage after bacteremia was demonstrated. Treatment with alitretinoin at doses of 50 mg/d was attempted with barely any improvement. After 1 month of treatment with no results, a decision was made to discontinue and initiate etanercept therapy at 50 mg twice weekly for 3 months, followed by 25 mg twice weekly until completing 6 months of treatment. The chest x-ray was normal (the Mantoux test had already been done and was negative). After 3 weeks of etanercept therapy, the PASI score had decreased to 33/72. The psoriasis continued to improve with a PASI score of 17/72 at 6 weeks and 0/72 at 9 weeks. No adverse effects were observed during etanercept therapy.

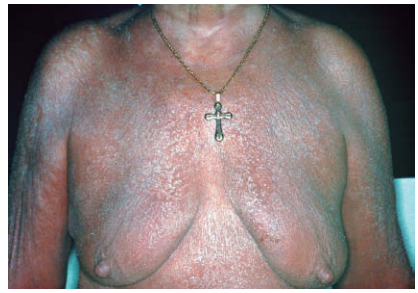

Figure 1. Patient's appearance before therapy. She presented erythroderma on 100 % of the body surface, with severe erythema as well as edema and mild flaking of the skin. The score on the Psoriasis Area and Severity Index was 55/72.

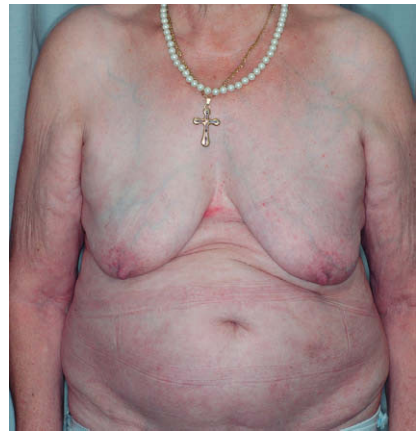

Figure 2. Patient's appearance 9 weeks after the start of etanercept therapy. The skin was observed to have a completely normal appearance. The Psoriasis Area and Severity Index score was 0/72.

Psoriatic erythroderma is one of the most uncommon and serious clinical forms of psoriasis, with frequent complications. This is a real challenge

Table. Patients With Psoriatic Erythroderma Who Received Biological Therapy

Case and Reference	*Sex/Age, y*	*Severity of Psoriasis*	*Treatment and Dosage*	*Associated Treatments*	*Degree of Improvement*	*Adverse Effects*
1[6]	M/57	90 % bs arthritis	Infliximab 5 mg/kg, day 0 and 28		PASI 75	
2[7]	F/37	> 90 % bs	Infliximab 3 mg/kg, day 0 and 14	Methotrexate 5 mg/wk	Almost complete clearance	
3[8]	F/16	Erythroderma arthritis	Infliximab 4.4 mg/kg, day 0 and 42 or 56	Methotrexate 7.5 mg/wk	?	
4[8]	F/27	Erythroderma arthritis	Infliximab 3.3 mg/kg, day 0 and 60	Methotrexate 5 mg/wk	?	
5[8]	F/54	Erythroderma arthritis	Infliximab 3.4 mg/kg, day 0	Methotrexate 5 mg/wk Prednisolone 10 mg/d	?	
6[8]	F/29	Erythroderma arthritis	Infliximab 2.7 mg/kg, day 0	Etanercept 25 mg twice weekly Methotrexate 7.5 mg/weekly Sulfapyridine 2 g/d	?	
7[9]	M/72	PASI: 34.4	Etanercept 25 mg twice weekly		[a]	[b]
8[9]	M/77	PASI: 48.2	Etanercept 25 mg twice weekly		[a]	[b]
9[9]	M/48	PASI: 31.6	Etanercept 25 mg twice weekly		[a]	[b]
10[9]	F/48	PASI: 32.4	Etanercept 25 mg twice weekly		[a]	[b]
11[9]	M/53	PASI: 32.4	Etanercept 25 mg twice weekly		[a]	[b]
12[9]	M/53	PASI: 52.0	Etanercept 25 mg twice weekly		[a]	[b]
13[9]	M/54	PASI: 18.4	Etanercept 25 mg twice weekly		[a]	[b]
14[9]	M/40	PASI: 54.9	Etanercept 25 mg twice weekly		[a]	[b]
15[9]	F/49	PASI: 18.8	Etanercept 25 mg twice weekly		[a]	[b]
16[9]	M/60	PASI: 68.3	Etanercept 25 mg twice weekly		[a]	[b]
17 current case	F/69	PASI: 55	Etanercept 50 mg twice weekly for 3 months, followed by 25 mg twice weekly for 3 more months		PASI 100	

Abbreviations: M, male; F female; bs, body surface; PASI, Psoriasis Area and Severity Index. [a]In the Esposito et al[9] study, PASI 75 was achieved in 50 % of patients, PASI 50 in 30 %, and a poor response in 20 %, although the therapeutic response was not described on a patient-by-patient basis. [b]Urinary infection and increased pruritus were reported as adverse effects in the patient group, but without identifying the specific case.

for clinical management because no large series have been published and no treatment protocol has been established. Systemic therapies such as retinoids, methotrexate, and cyclosporine, among others, either alone or in combination, have traditionally achieved mixed results.[5] However, the market introduction of biological therapies provided new options for the treatment of this variant of psoriasis.

Experience with biological therapy for the treatment of erythrodermal psoriasis is limited to the use of etanercept and infliximab (Table). Infliximab has been used in 2 isolated cases,[6,7] and a small series of 4 patients,[8] whereas etanercept has only been analyzed in a prospective study of 10 patients.[9] The clinical response was good in the patients treated with infliximab, although in 4 out of 6 the degree of response was not reported. In addition, except for 1 case,[6] the others were receiving methotrexate at the same time. The response was good in 80 % of patients treated with etanercept (50 % with a PASI 75 response and 30 % with PASI 50 response), but no other concomitant medications.

It is difficult to draw comparative conclusions between infliximab and etanercept, due to the limited number of case studies published, as well as the different doses and the use of concomitant treatments. However, etanercept and infliximab appear to be clearly superior to classic systemic therapy for psoriatic erythroderma, due to their fast action, greater efficacy, and few adverse effects. More cases are nevertheless needed to establish the most appropriate dosage and treatment.

References

1. Lebwohl M, Christophers E, Langley R, Orteno JR, Roberts J, Griffiths CE. An international, randomized, double blind, placebo-controlled phase 3 trial of intramuscular alefacept in patients with chronic plaque psoriasis. Arch Dermatol. 2003;139:719-27.
2. Leonardi CL. Efalizumab: an overview. J Am Acad Dermatol. 2003;49:98-104.
3. Gottlieb AB, Matheson RT, Lowe N, Krueger GG, Kang S, Goffe BS, et al. A randomized trial of etanercept as monotherapy for psoriasis. Arch Dermatol. 2003;139:1627-32.
4. Feldman SR, Gordon KB, Bala M, Evans R, Li S, Dooley LT, et al. Infliximab treatment results in significant improvement in the quality of life of patients with severe psoriasis: a double-blind placebo-controlled trial. Br J Dermatol. 2005;152:954-60.
5. Van der Vleuten CJM, Gerritsen MJP, Steijlen PM, de Jong EMGJ, van der Kerkhof PCM. A therapeutic approach to erythrodermic psoriasis: report of a case and a discussion of therapeutic options. Acta Derm Venereol (Stockh). 1996;76:65-7.
6. Rongioletti F, Borenstein M, Kirsner R, Kerdel F. Erythrodermic, recalcitrant psoriasis: clinical resolution with infliximab. J Dermatol Treat. 2003; 14:222-5.
7. Lisby S, Gniadeckl R. Infliximab (Remicade®) for acute, severe pustular and erythrodermic psoriasis. Acta Derm Venereol. 2004;84:247-8.
8. Heikkilä H, Ranki A, Cajanus S, Karvonen SL. Infliximab combined with methotrexate as long-term treatment for erythrodermic psoriasis. Arch Dermatol. 2005;141:1607-10.
9. Esposito M, Mazzotta A, de Felice C, Papoutsaki M, Climenti S. Treatment of erythrodermic psoriasis with etanercept. Br J Dermatol. 2006;155: 156-9.

Evaluation of Dermatological Services Implemented in the Primary Care Setting

JM Carrascosa, MJ Fuente, and C Mangas

Servicio de Dermatología, Hospital Universitari Germans Trias i Pujol, Universitat Autònoma de Barcelona, Badalona, Spain

To the Editor:

In light of the interesting article published by Macaya-Pascual et al,[1] we felt it appropriate to describe the results of a study conducted in our referral area.

In 2004 a service list for dermatology was prepared and distributed jointly by the Dermatology Department at the Hospital Universitario Germans Trias i Pujol and primary health care representatives in order to streamline the specialist care offering and reduce the waiting list. Among other points, this list expressly recommended that referrals be restricted when treatment was requested for clearly benign lesions—skin tags, seborrheic keratoses, dermal nevi, cherry angiomas, and liver spots—that present no diagnostic doubts or complications. Implementation was assessed by a cross-sectional study conducted in November and December 2005 of the first 200 consecutive visits referred to specialists from primary care. The endpoints assessed included whether the reason for consultation was considered "indicated" or "not indicated" in the opinion of the dermatologist consulted, using the previously agreed service list as a reference. As a whole, 72/200 (36 %) of the initial visits assessed were considered "not indicated" by the dermatologist. In this group, 72 % (52/72) of the visits included reasons for consultation agreed