Table 1 Characteristics of Chronic Graft-vs-Host Disease After Liver Transplantation.

	Age	Sex	Onset	Clinical Manifestations	Chimerism	Course
Whitington et al.,[8] 1996	9 mo	F	+60 d	Hematologic, cutaneous	Yes, PB	Chronic
Pinna et al.,[9] 1999	8 mo	F	+330 d	Intestinal	Yes, PB	Recovery
	8 mo	M	+230 d	Fever Intestinal Hematologic Cutaneous	Yes, PB	Recovery
Dunn et al.,[10] 2001	10 mo	F	+6 y	Intestinal Cutaneous	Yes, PB	Recovery
Nemoto et al.,[7] 2003	50 y	F	+114 d	Cutaneous	Yes, PB	Recovery
Walling et al.,[4] 2004	60 y	M	+70 d	Cutaneous	Yes, PB	Recovery
Yilmaz et al.,[3] 2012	49 y	M	+50 d	Cutaneous Fever Intestinal Hematologic	Not tested	Deceased

Abbreviations: F, female; M, male; PB, peripheral blood.

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J. Sanz-Bueno,[a,*] G. Pérez-Rial,[b] M. Castellanos,[a] F. Vanaclocha[a]

[a] *Servicio de Dermatología, Hospital Universitario 12 de Octubre, Madrid, Spain*
[b] *Servicio de Medicina del Aparato Digestivo, Hospital Universitario Gregorio Marañón, Madrid, Spain*

* Corresponding author.
E-mail address: jsanzbueno@gmail.com (J. Sanz-Bueno).

Restoration of Response to Ustekinumab With Narrowband UV-B Phototherapy☆

Recuperación de la respuesta a ustekinumab mediante fototerapia con ultravioleta B de banda estrecha

To the Editor:

The various approaches approved for the treatment of moderate and severe forms of psoriasis include phototherapy, photochemotherapy, classic systemic agents, and biologic agents. These approaches may be used in monotherapy, in combination with topical agents, or in combination with each other. The choice of therapy should be based on the

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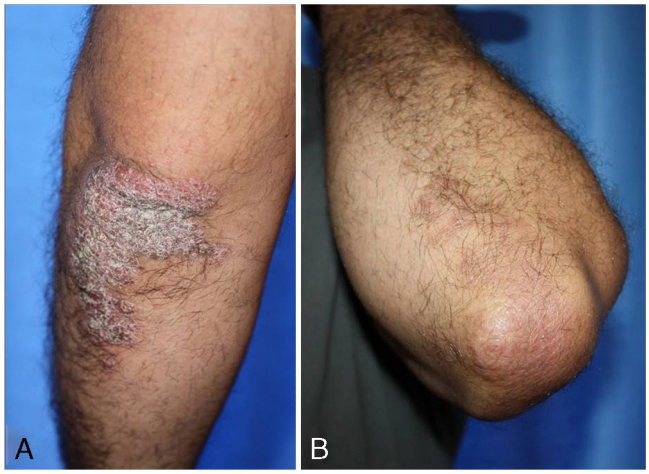

Figure 1 A, Patient 1. Recurrence of psoriasis 30 weeks after initiation of ustekinumab (PASI, 9.8). B, Patient 1. PASI 75 after combining 17 sessions of narrowband UV-B therapy (12.9 J/cm^2) with ustekinumab (PASI, 2.1). PASI indicates Psoriasis Area and Severity Index.

individual characteristics of the patient and the disease.[1] We present 2 cases of moderate to severe psoriasis treated with the combination of ustekinumab and narrowband UV-B phototherapy during secondary loss of response to the drug.

Patient 1

Patient 1 was a 37-year-old man weighing 90 kg. He was a smoker (20 pack-years) and had no relevant past medical history. He had moderate to severe psoriasis that had begun 11 years earlier and for which he had received treatment with acitretin, ciclosporin, infliximab, and etanercept. This approach was partially successful. A new flare-up of psoriasis was treated with ustekinumab 45 mg according to the standard regimen, and the initial response was excellent: his Psoriasis Area and Severity Index (PASI) fell from 10.2 to 1.2 (improvement of 90%), which was maintained until week 30, when he experienced a relapse (PASI, 9.8) (Fig. 1A), with no increase in body weight. At this point, phototherapy was combined with ustekinumab. After 17 sessions of narrowband UV-B phototherapy and a cumulative dose of 12.9 J/cm^2, his psoriasis improved considerably, and his PASI fell to 2.1 (improvement of 75%) (Fig. 1B). The patient remained stable and recurrence-free after 5 months of ustekinumab in monotherapy.

Patient 2

Patient 2 was a 57-year-old woman weighing 87 kg with a previous history of arterial hypertension, positional vertigo, and anxiety. She was receiving treatment with betahistine, amiloride/hydrochlorothiazide, tetrazepam, and atenolol (indispensable for control of her arterial hypertension). She had a 15-year history of moderate to severe psoriasis and, during that time, she had received several treatments (methotrexate, infliximab, adalimumab, and etanercept), to which the response was poor or short-term. Her initial response to ustekinumab 45 mg with the usual regimen was good (PASI 10.6 to PASI 4.2, improvement of 50%-75%),

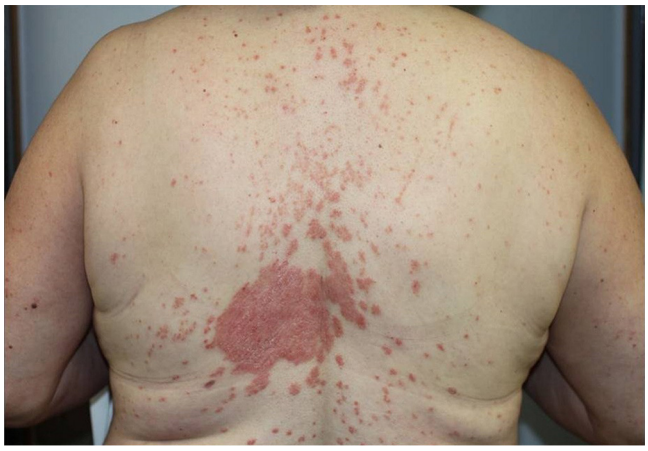

Figure 2 Patient 2. Worsening of psoriasis at 64 weeks after initiation of ustekinumab (Psoriasis Area and Severity Index, 7.8).

although at 64 weeks of treatment her condition worsened (PASI 7.8) (Fig. 2), with no change in body weight; therefore, ustekinumab was combined with narrowband UV-B phototherapy. After 16 sessions and a cumulative dose of 15 J/cm^2, her psoriasis improved considerably, and her PASI fell to 0.6 (improvement of 90%) (Fig. 3), which remained stable with ustekinumab in monotherapy after 3 months of follow-up.

Discussion

Biologic agents constitute a major advance in the treatment of moderate to severe psoriasis. Although they are all efficacious in the short term, the response is lost over time in some cases.[2]

The PHOENIX 1 study showed that continuous therapy with ustekinumab maintained the clinical response in most patients over time.[3] Overall, almost 80% continued to receive treatment until the third year, and the number of interruptions associated with efficacy was low (45 mg [7.9%]; 90 mg [4.2%]). Most patients had a lasting PASI 75 (45 mg

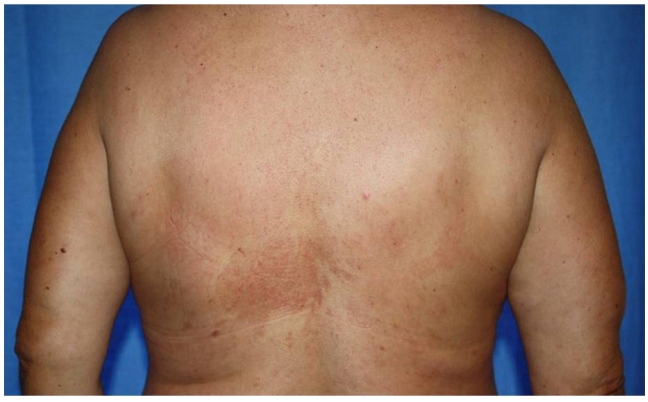

Figure 3 Patient 2. Psoriasis Area and Severity Index 90 response with the combination of ustekinumab and narrowband UV-B phototherapy (15 J/cm^2 in 16 sessions).

[62.7%]; 90 mg [72.2%]), and 84% maintained a response that was equal to or greater than PASI 50.

Although it seems that there was no major decrease in response over time in the study population as a whole, it is important to identify this subgroup and prepare rescue strategies, such as reduction in the administration interval (eg, 12 to 8 weeks) or combination with other topical or systemic agents or phototherapy.

Several clinical studies have found that combination with narrowband UV-B phototherapy improves the efficacy of some tumor necrosis alfa (TNF-α) factor inhibitors such as etanercept[4,5] and adalimumab.[6,7] A recent study based on a small clinical series revealed similar findings in patients treated with ustekinumab,[8] as in the 2 cases described above.

The clinical improvement in psoriasis treated with narrowband UV-B phototherapy is linked to suppression of the signaling pathways of type 17 helper T cells and types I and II interferons, which play a key role in pathogenesis.[9] The modifying effects of phototherapy also have an effect on the antigen-presenting function and direct apoptosis of T lymphocytes.

Given that some experimental studies have shown how combination therapy with anti-TNF-α agents can increase the risk of photocarcinogenesis,[10] the combination of biologic agents and phototherapy should be administered with caution and only in selected patients.

To conclude, narrowband UV-B phototherapy could be a good alternative for restoration of the response to ustekinumab in selected cases of moderate to severe psoriasis.

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P. Soro Martínez, I. Belinchón Romero,*
M.P. Arribas Granados

Servicio de Dermatología, Hospital General Universitario de Alicante, Alicante, Spain

* Corresponding author.
E-mail address: belinchon_isa@gva.es (I. Belinchón Romero).

Sevoflurane: A Valid Alternative for the Treatment of Vascular Ulcers?☆

Sevoflurano, ¿una alternativa en el tratamiento de las úlceras vasculares?

To the Editor:

Vascular ulcers are a major health problem because of their frequency, chronic nature, and high recurrence rate. The standard treatment, which consists of cleansing, debridement, and application of dressings, achieves cure rates of 65% to 85%.[1]

The approaches used to accelerate scarring of these ulcers include dressings (biologic, synthetic, or biosynthetic), human amniotic membrane transplantation,[1] and autologous platelet-rich plasma.[2]

Options for analgesia to control the pain associated with vascular ulcers include topical anesthetics such as the creams Emla (lidocaine and prilocaine) and Lambdalina (lidocaine), oral analgesics, and even opiates. These products aid in the healing process and in pain control, although they can produce undesirable effects.

Sevoflurane is an inhaled general anesthetic from the halogenated ether family that is indicated for induction and maintenance of general anesthesia during hospital or outpatient surgery.[3] Its analgesic effect is both central[4] and peripheral,[5-7] although it has traditionally been thought that halogenated anesthetics lack a peripheral analgesic effect.[8]

Topical sevoflurane has been reported to be effective in the treatment of long-standing venous ulcers[5] and ischemic ulcers[6] that are refractory to standard treatment; when irri-

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