LETTERS TO THE EDITOR

Reply: “Preliminary Results of DERMATEL: Prospective Randomized Study Comparing Synchronous and Asynchronous Modalities of Teledermatology”

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To the Editor:

We have carefully read the article published by Romero et al.1 on the preliminary results of the DERMATEL study comparing synchronous and asynchronous teledermatology and would like to congratulate these authors on their work.

Similar to other published studies,2,3 the authors obtained high diagnostic accuracy with teledermatology, in both the store-and-forward and real-time modalities. However, teledermatology continues to present a series of problems in comparison with conventional dermatology consultation, for instance, longer times and greater costs with less effectiveness. For the time being, this prevents teledermatology from being implemented in Spain and other countries such as the United Kingdom,4 despite a number of pilot projects, research studies, and economic assessments of this technology.5

We would like to report our experience: in 1999 and 2001 we did a pilot project involving teledermatology between a county hospital on the island of El Hierro and a referral hospital on the island of Tenerife. The project consisted of both real-time (1999) and store-and-forward (2001) consultations. The first part of the study (real-time teledermatology) was qualitatively assessed with regard to the quality of information exchange and the satisfaction of patients, relatives, and professionals.4 The study showed that teledermatology was well accepted by patients and had a resolution capacity of 80% for real-time consultations, but only 43% for store-and-forward teledermatology. An economic assessment of the first 72 real-time teledermatology consultations in 1999 was also done. Resource utilization for each consultation was assigned using a cost model based on the activities described in the respective protocols (activity-based costing). It was estimated that conventional dermatology was less expensive (yearly costs: 12 445.71 euros for conventional dermatology vs 16 222.86 for real-time teledermatology) and more effective than real-time teledermatology (per-patient cost: 33.18 euros and 48.42 euros, respectively). Hence, teledermatology could be a health care alternative as it was well accepted by patients, despite lower efficacy, effectiveness, and efficiency than face-to-face consultation in our setting at that time.

Since that time, conventional dermatology consultations have been held twice monthly on the island of El Hierro, using store-and-forward teledermatology on occasions for follow-up when assessment of patients was necessary less than 15 days after diagnosis and to assess emergency patients (as a support before deciding on air travel from the island of El Hierro to Tenerife).

Larger studies on practical results at the clinic are needed, for instance, on the number of referrals, cost-effectiveness,6 acceptance by patients (anxiety and concerns, physician interaction, quality of life, assessment of other lesions, etc) and by professionals.7 We agree with Romero et al.1 that greater accessibility would not offset lower quality of care in countries such as ours that have excellent transportation infrastructure. Thus, if routine implementation of teledermatology is not justified in an outlying area accessible only by boat or plane such as the island of El Hierro, it would be hard to justify it in other situations where access to dermatologists does not require air travel and would be considered an option only under special circumstances.

The use of teledermatology allows dermatologists to remain at the forefront, as in other medical specialties, improve the field of dermatology, and use modern telecommunication technologies. However, in addition to the doubtful economic viability, questions remain to be resolved about the ethical and medicolegal considerations regarding the division of responsibilities between the specialist (consultant) and primary care physician (prescriber and provider of treatment).

References

3. Mahendran R, Goodfield MJ, Sheehan-Dare RA. An evaluation of the role of a store-and-forward teledermatology system in skin cancer...
To the Editor:

We describe a 39-year-old woman with a history of psoriasis who came to the internal medicine department for diminished appetite and weight loss. At that time, she did not present any cutaneous psoriasis lesions. In the tuberculin test requested, after 72 hours the application area on the forearm showed a severe erythematous, pruritic reaction (Figure 1) with the onset of generalized pruriginous papular lesions with predominance on the limbs (Figure 2) and abdominal area that progressed to desquamative pustular lesions within a few days. The patient was referred to the allergology and dermatology departments. She was treated with oral antihistamines for various weeks with no improvement. A skin biopsy was taken and topical corticosteroids were prescribed, which resolved the condition leaving residual hyperpigmentation. A skin biopsy of one of the lesions showed areas of confluent parakeratosis with neutrophil microabscesses, with slight thinning of the underlying epidermis and hypogranulosis, scant presence of neutrophils in the stratum spinosum, and slight spongiosis and exocytosis of lymphocytes. This alternated with areas of orthokeratosis where the epidermis presented a hyperplastic appearance with mild acanthosis, mild spongiosis, and occasional exocytosis of lymphocytes, along with mild perivascular lymphocytic infiltrate in the papillary dermis, with nuclear dust, some macrophages near the basement membrane, and small vessels in the papillary dermis with dilated lumens and swollen endothelia, and containing some polymorphonuclear cells. No bacilli were observed with the Ziehl–Neelsen technique and no fungal structures were seen with the Grocott technique.

A pustular eruption can occur in the course of psoriasis. Triggers include infections and the use of topical medication. More than 30% of patients with psoriasis have noticed lesions in trauma areas (Koebner phenomenon). Some patients with psoriasis develop psoriasiform lesions in areas of trauma. The tuberculin test injection could be considered a trauma that could trigger this type of phenomenon. In the literature consulted (MEDLINE), we found only 1 case of Koebner phenomenon in which a psoriatic papule developed after the intradermal injection of tuberculin, but found no reports of generalized pustulosis after the tuberculin test. In addition, the Koebner phenomenon would not explain the appearance of generalized lesions at the same time as the severe reaction to the tuberculin test. One possible explanation for the pustulosis would be miliary tuberculosis, but there are no clinical, analytical, or
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


Psoriatic Erythroderma Treated with Etanercept

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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.

Psoriatic erythroderma is one of the most uncommon and serious clinical forms of psoriasis, with frequent complications. This is a real challenge
### Patients With Psoriatic Erythroderma Who Received Biological Therapy

<table>
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<th>Case and Reference</th>
<th>Sex/Age, Severity of Psoriasis</th>
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<td>1&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>2&lt;sup&gt;b&lt;/sup&gt;</td>
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<td>F/16 Erythroderma arthritis</td>
<td>Infliximab 4.4 mg/kg, day 0 and 42 or 56</td>
<td>Methotrexate 7.5 mg/wk</td>
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<td>4&lt;sup&gt;d&lt;/sup&gt;</td>
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<td>5&lt;sup&gt;e&lt;/sup&gt;</td>
<td>F/54 Erythroderma arthritis</td>
<td>Infliximab 3.4 mg/kg, day 0</td>
<td>Methotrexate 5 mg/wk Prednisolone 10 mg/d</td>
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<td>Etanercept 25 mg twice weekly Methotrexate 7.5 mg/weekly Sulfapyridine 2 g/d</td>
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<td>M/77 PASI: 48.2</td>
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<td>10&lt;sup&gt;j&lt;/sup&gt;</td>
<td>F/48 PASI: 32.4</td>
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<td>b</td>
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<td>17 current case</td>
<td>F/69 PASI: 55</td>
<td>Etanercept 50 mg twice weekly for 3 months, followed by 25 mg twice weekly for 3 more months</td>
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<td>PASI 100</td>
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Abbreviations: M, male; F female; bs, body surface; PASI, Psoriasis Area and Severity Index. *In the Esposito et al<sup>9</sup> 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. *Urinary infection and increased pruritus were reported as adverse effects in the patient group, but without identifying the specific case.
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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. 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 erythodermal psoriasis is limited to the use of etanercept and infliximab (Table). Infliximab has been used in 2 isolated cases and a small series of 4 patients, whereas etanercept has only been analyzed in a prospective study of 10 patients. 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, 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


Evaluation of Dermatological Services Implemented in the Primary Care Setting

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To the Editor:

In light of the interesting article published by Macaya-Pascual et al, 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...
in the service list not to be eligible for referral.

Despite the limited scope of the study in terms of data collection and with no prior study that could be used as a reference, the results suggest that consensus and subsequent distribution of the service list in the referral area would have some impact on referrals of trivial, extremely widespread lesions that account for almost 1 of 3 consultations.

The factors that lead to a high prevalence of consultations for trivial lesions in the public health care system and their medium-term and long-term consequences on dermatologists’ activity are unquestionably complex and deserve lengthy and careful discussion. However, this situation not only requires funding, as Macaya-Pascual et al pointed, but could largely explain the long waiting lists commonly seen in dermatology outpatient clinics. Unlike the private sector, resource allocation in the public health care system is not proportional to demand and market laws, but is governed by political criteria and health plans or medium-term and long-term strategies. Under these circumstances, the waiting list is far from helpful for dermatologists and often turns into a severe care overload that limits the time that professionals should devote to truly ill patients—who must also endure a bloated waiting list—and to the practice of all the various elements of the specialty.

Therefore, it appears appropriate for dermatologists to claim reasonable restrictions on the treatment of trivial, highly prevalent skin lesions in the public health care system or, if considered appropriate, adjustment of human and material resources to the demand, so as to allow quality care. In addition to requiring sufficient agreement and consensus among professionals from the various Spanish autonomous communities—the Academia Española de Dermatología y Venereología (Spanish Academy of Dermatology and Venereology, AEDV) could be an appropriate institutional setting for discussion in this case—it would be desirable to identify and use health care management indicators and have the necessary agreement and cooperation among those responsible for primary care.

Lastly, as Macaya-Pascual et al rightly concludes, none of this takes into consideration the meager percentage of total invoicing for the visits that goes to the dermatologists, who would blanch with envy at the most miserly entrepreneur in the private sector.

Acknowledgments

We would like to thank Dr Carlos Ferrándiz and Dr Miquel Ribera for a critical reading of this text.

References


Adalimumab-Induced Urticaria

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To the Editor:
The use of biological agents is a safe, effective treatment in certain diseases, mainly dermatological and rheumatological diseases.

In particular, adalimumab (Humira), a recombinant human monoclonal antibody that inhibits tumor necrosis factor-α (TNF-α), has begun to be used in the treatment of rheumatoid arthritis, ankylosing spondylitis, and psoriatic arthritis.

Skin reactions to this antibody are uncommon, around 1 % according to clinical studies, and include, among others, allergic rash, anaphylactic reaction, fixed drug eruption, nonspecific drug reaction, and urticaria. This last entity is extremely rare, with only 1 case reported in 2006, in a 41-year-old woman with a long history of plaque psoriasis who presented lesions consistent with acute urticaria in the neck and arms, in which onset occurred within hours of each administration of adalimumab.
Other skin reactions have been identified. In 2004 a case of erythema multiforme-like reaction was described in a patient with rheumatoid arthritis. Lesions appeared at the injection site and on the palms and soles after the sixth dose of adalimumab, but improved after discontinuation of this drug. In 2006, Boura et al reported the case of a 72-year-old woman diagnosed with rheumatoid arthritis who presented lesions consistent with eosinophilic cellulitis (Wells syndrome) in the area of the first injection.

In addition to those reports, we describe the case of a 32-year-old man diagnosed with ankylosing spondylitis who had presented an inadequate response to conventional therapy. The rheumatology department initiated treatment with subcutaneous adalimumab (at doses of 40 mg every 2 weeks), leading to improvement of the symptoms. After administration of the third dose, the patient reported the sudden onset of very severe pruritus in the lower back, accompanied by a slight burning sensation and general malaise, with no other associated symptoms or intake of any other medication. The pruritus later spread to the rest of the trunk and to the junctions of the limbs. The physical examination revealed multiple confluent erythematous-edematous lesions forming large plaques on the back and the anterior region of the trunk, and with smaller patches on both flanks (Figure). The lesions were described as evanescent by the patient. The symptoms were not accompanied by difficulty with breathing or by edema of the lips, tongue, or eyelids. Based on a diagnosis of acute urticaria, oral antihistamines and corticosteroids were prescribed, with improvement of the symptoms and disappearance of the lesions within a few days.

The rheumatology department did not prescribe new doses of adalimumab, and the patient has remained asymptomatic to date. The urticaria was attributed to the administration of adalimumab, in view of the absence of other potential causal factors in the patient.

A noticeable increase in the use of biological agents should be expected to result in new reports of skin reactions associated with their use.

References