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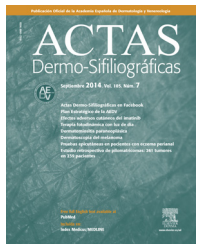

ORIGINAL ARTICLE

Dose Modification in Biologic Therapy for Moderate to Severe Psoriasis: A Descriptive Analysis in a Clinical Practice Setting☆

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KEYWORDS
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Dose reduction;
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Abstract
Introduction: In biologic therapy, dose modification in carefully selected patients when psoriasis is in remission could reduce treatment costs and the risks associated with drug exposure.
Material and methods: Observational, descriptive, cross-sectional study, performed in January 2014, of 112 patients with moderate to severe psoriasis who had been on biologic therapy for at least 6 months. The therapeutic objective in all cases was to achieve and maintain a 75% reduction in Psoriasis Area and Severity Index (PASI 75). All the patients had started treatment with the standard regimen. During treatment, the dose had been reduced in patients who achieved the therapeutic objective and escalated in those who failed to respond adequately to standard doses.
Results: At the time of the study, 42.9% of the patients were receiving the standard dose, 50% were on a reduced dose, and 7.1% were on an escalated regimen. The agent with which the dose was most often reduced was adalimumab (57.7%), and the agents with which therapy was most often escalated were ustekinumab (17.9%) and infliximab (12.5%). Patients who received reduced doses had significantly longer-standing disease ($P = .049$) and longer treatment duration with the same biologic agent ($P = .009$). In the group that did not fulfill the criteria for dose reduction, the proportion of patients with psoriatic arthritis was significantly higher ($P = .023$). Cost savings were as follows: 21.5% with adalimumab, 13.8% with etanercept, 0.9% with ustekinumab, and 0.55% with infliximab.

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Conclusions: Patients with longer-standing disease and longer treatment duration with the same biologic agent were significantly more likely to be candidates for dose reduction. The proportion of patients with psoriatic arthritis was greater in the group of patients who did not fulfill the conditions for dose reduction. The overall cost saving achieved using the dose modification algorithm described in this study was 13%. Controlled studies are needed to define the profile of the patients best suited for dose reduction strategies without loss of treatment efficacy.

PALABRAS CLAVE
Terapia biológica;
Reducción de dosis;
Adalimumab;
Etanercept;
Infliximab;
Ustekinumab

Modificación de la dosis de terapias biológicas en psoriasis moderada-grave: análisis descriptivo en condiciones de práctica clínica

Resumen
Introducción: La modificación de dosis de biológicos en pacientes con psoriasis en remisión adecuadamente seleccionados podría reducir el riesgo de exposición al fármaco y su carga económica.
Material y métodos: Estudio observacional, descriptivo y transversal en 112 pacientes con psoriasis moderada-grave tratados con biológicos durante ≥ 6 meses en enero de 2014. El objetivo consistió en alcanzar y mantener una respuesta PASI 75. Los pacientes iniciaron el tratamiento con la pauta estándar; en aquellos que cumplieron el objetivo se redujo la dosis, y cuando no alcanzaron la respuesta con la pauta estándar esta se intensificó.
Resultados: Un 42,9% siguió la pauta estándar, un 50% la reducida y un 7,1% la intensificada. El fármaco con el que más se redujo la dosis fue adalimumab (57,7%) y los que más se intensificaron fueron ustekinumab e infliximab (17,9% y 12,5%). Los pacientes que recibieron dosis reducidas presentaron una psoriasis de más evolución (p = 0,049) y llevaban más tiempo en tratamiento con el mismo biológico (p = 0,009) (diferencias significativas). Hubo una proporción significativamente superior de pacientes con artritis psoriásica entre los no aptos a reducir dosis (p = 0,023). El ahorro del gasto fue del 21,5% con adalimumab, 13,8% con etanercept, 0,9% con ustekinumab y 0,55% con infliximab.
Conclusiones: Presentaron una probabilidad de reducción de dosis significativamente mayor aquellos pacientes con más tiempo de evolución y más tiempo bajo el mismo tratamiento biológico. Entre los pacientes sin reducción de dosis hubo mayor proporción con artritis psoriásica. El ahorro global con este algoritmo de modificación de dosis fue del 13%. Se requieren estudios controlados que ayuden a definir el perfil de paciente más adecuado para reducir la dosis sin pérdida de eficacia del tratamiento.

Introduction

Psoriasis is a chronic recurrent skin disease that affects 2.3% of the Spanish population[1] and between 2% and 3% of the population worldwide.[2] Approximately one-third of these patients have moderate to severe psoriasis, defined as disease requiring long-term systemic therapy, which is often associated with cumulative toxicity, intolerance and, in some cases, a poor response.[3]

The drugs best adapted to continuous treatment are the biologic agents. In most patients treated in routine practice, a reasonable therapeutic objective with the biologic agents currently available would be an improvement of more than 75% over the baseline Psoriasis Area Severity Index (PASI 75) during induction therapy, a phase that can last up to 24 weeks. The efficacy of all the biologic agents tends to reach a plateau by the end of this phase.[4]

Several authors have indicated that, in patients with psoriasis in remission, continuing the standard regimen of a biologic drug could result in overtreatment, and have suggested that it may be reasonable to tailor the regimen on a case-by-case basis.[5,6] A number of authors have analyzed the application of dose modification strategies to biologic therapy in patients with rheumatoid arthritis in a state of remission; the results show, in the case of tumor necrosis factor (TNF) inhibitors, that efficacy is preserved in most patients.[7] Modification of the dose of a biologic drug in carefully selected patients in remission could reduce both the drug-exposure risk and the economic burden on the health care system.[8] This strategy has already been proposed in other chronic diseases, such as rheumatoid arthritis, as a way to tailor treatment and identify the minimum effective dosage in each case.[9–12]

It is particularly useful to analyze the risks and benefits associated with the use of non-standard regimens of the different biologic agents used in the treatment of psoriasis. It is also important to identify the clinical characteristics associated with the success or failure of such off-label regimens, including the risk of relapse and the likelihood that the patient will develop specific antibodies.[13] The decision