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Original Investigation

Time to and factors associated with initiation of biological therapy in patients with rheumatoid arthritis in Colombia

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ABSTRACT

Aims: To determine the time Colombian patients with rheumatoid arthritis (RA) are treated with non-biological disease-modifying antirheumatic drugs (DMARDs) before changing to biological therapy.

Methods: A retrospective cohort study that collected information about the start of antirheumatic treatment in patients of all ages with a diagnosis of RA until the change to biological DMARD therapy. Survival analysis using Kaplan–Meier curves, from 1 January 2007 until 31 December 2013 by SPSS 23.0 for Windows, was made.

Results: A total of 3880 patients (75.3% women) with a mean age of 51.3 years started non-biological DMARDs. After 5 years, 234 patients (6.0%) initiated biological DMARD therapy in 17.5 ± 13.9 months. The use of glucocorticoids (OR: 2.49; 95% CI: 1.658–3.732), having any comedication (OR: 1.83; 95%CI: 1.135–2.966) and being treated in the city of Bogota (OR: 2.30; 95%CI: 1.585–3.355) or in the cities of the Colombian Atlantic coast (OR: 2.848; 95%CI: 1.468–5.524) were associated with a higher likelihood of biological DMARD initiation. Whereas the initiation of therapy with methotrexate (OR: 0.04; 95% CI: 0.014–0.108; $p < 0.001$) or chloroquine (OR: 0.13; 95% CI: 0.092–0.187; $p < 0.001$) or receiving antihypertensive medication (OR: 0.64; 95% CI: 0.421–0.960; $p = 0.031$) was associated with a significant reduce in likelihood.

Conclusion: After 5 years of non-biological DMARD therapy, 6.0% of people with RA started biological DMARDs. Receiving glucocorticoids, having any comedication, being treated in Bogota City or cities of the Colombian Atlantic coast affected the probability of switching to biological therapy in these patients.

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Tiempo y factores asociados con el inicio de terapia biológica con antirreumáticos modificadores de enfermedad en pacientes con Artritis Reumatoide en Colombia

Palabras clave:
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Análisis de Supervivencia
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RESUMEN

Objetivo: Determinar el tiempo transcurrido desde que pacientes de Colombia con artritis reumatoide (AR) en tratamiento con fármacos antirreumáticos modificadores de enfermedad no biológicos (FAMEs) cambian a terapia con biológicos.

Materiales y métodos: Estudio de cohorte retrospectiva que recogió información sobre inicio de tratamiento antirreumático en pacientes de todas las edades con diagnóstico de AR hasta que pasaron a terapia con FAMEs biológicos. Se hizo un análisis de sobrevida, utilizando curvas de Kaplan–Meier, desde el 1 de enero de 2007 hasta el 31 de diciembre de 2013 mediante SPSS 23.0 para Windows.

Resultados: Un total de 3880 pacientes iniciaron terapia con FAMEs no biológicos, (75,3% fueron mujeres) con una edad media de 51,3 años. Tras cinco años de seguimiento, 234 pacientes (6,0%) iniciaron FAMEs biológicos en promedio a los 17,5 ± 13,9 meses. El uso de corticoides (OR: 2,49; IC95%: 1,658–3,732; p<0,001), recibir alguna comedicación (OR: 1,83; IC95%: 1,135–2,966), ser tratado en Bogotá (OR: 2,30; IC95%: 1,585–3,355), en las ciudades de la costa Atlántica (OR: 2,848; IC95%: 1,468–5,524) estuvieron asociados con una mayor probabilidad de inicio de biológicos mientras que el uso de metotrexate (OR: 0,04; IC95%: 0,014–0,108) o cloroquina (OR: 0,13; IC95%: 0,092–0,187) o recibir medicación antihipertensiva (OR: 0,64; IC95%: 0,421–0,960) redujeron la posibilidad.

Conclusiones: Después de cinco años de terapia antirreumática convencional, un 6,0% de pacientes con AR inició terapia con FAMEs biológicos. Recibir corticoides, recibir comedicación, ser tratado en Bogotá o la costa Atlántica afectan la probabilidad de cambiar a terapia biológica.

Introduction

Rheumatoid arthritis (RA) is a chronic systemic inflammatory disease, with a prevalence of 0.5–0.8% in the adult population,[1] which predominates in females and has an annual incidence of 40 cases per 100,000 inhabitants.[2] In Latin America and Colombia the prevalence is 1.6% and 0.15%, respectively.[3,4]

RA has a considerable impact on the quality of life and functionality of the patient, as well as on society, especially for loss of productivity due to illness or permanent disability and a high expenditure of resources for any health system. Life expectancy in patients with RA is 3–10 years lower than the general population.[5]

Treatment is usually done with non-biological disease-modifying antirheumatic drugs (DMARDs) alone or associated with glucocorticoids, but the addition of a biological DMARD can be necessary.[6] Biological drug therapy is usually prescribed following failure to achieve remission of the morbidity with one or more non-biological DMARDs. However, there is the possibility of using them as a first line in the initial phase, taking into account the concept of window of opportunity, defined as an early stage of a disease during which there is the possibility of potentially altering its course or even reverting it to normality, as they have shown a greater effectiveness to stop progression and to induce remission of the inflammatory activity compared with therapies used in more advanced stages.[6]

Some studies suggest that the early treatment of RA translates to reduction of the cost of this pathology to society.[3,6] It should be noted that other strategies such as the simultaneous combination of a non-biological and a biological DMARD have found higher rates of remission and less radiological progression of the disease compared to the use of any of the separate therapies.[7–10]

The General System of Social Security in Health (SGSSS in Spanish) of Colombia offers universal coverage to people through two regimes, one paid by the worker (contributory) and the other subsidized by the State, which has a benefits plan with a list of medicines which includes some of the biological and non-biological DMARDs. When a patient requires a DMARD outside the list, he or she has the option to obtain it through a special request made by their doctor (called the CTC) or through the legal guardianship tool. Given the economic, quality of life and morbidity impact of this group of drugs on patients with RA, we seek to determine the time elapsed from the start of therapy with non-biological DMARDs to the change to therapy with biological DMARDs, and the variables associated with this change in patients with RA affiliated to the Colombian SGSSS.

Methods

A retrospective cohort study was conducted with a survival analysis to determine the time elapsed between the initiation

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