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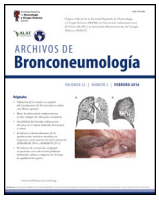

Original Article

Screening for latent tuberculosis infection in patients who are candidate for biological therapies in Spain? A multidisciplinary survey☆

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ABSTRACT

Introduction: Treatment with biological therapies increases the incidence of tuberculous disease. The introduction of systematic screening for latent tuberculosis infection in patients who are to receive these therapies has reduced this risk. In 2016, the consensus document on the prevention and treatment of tuberculosis in patients who are candidates for biological treatment was published in Spain. The main objective of this study was to evaluate adherence to these guidelines.
Methods: Multicenter, descriptive, observational study via an anonymous online survey sent to medical societies involved in biologics.
Results: We received 747 responses. Most respondents performed screening at the right time in the right patients (93.7%). Only 36.6% of respondents requested the appropriate diagnostic test, while 56.3% correctly recommended chemoprophylaxis. Up to 96% were familiar with the recommended chemoprophylaxis regimens, while only 63.9% initiated them at the right time. The specialist area that participated most and screened most patients for latent tuberculosis infection was rheumatology (54%). In most cases, pulmonologists were involved in an advisory capacity.
Conclusions: This study shows poor overall adherence to recommendations, with only 56% of respondents reporting appropriate compliance. The incidence of tuberculous disease in patients who are to receive biological therapies could be reduced further by emphasizing the importance of the right diagnostic test and use of the diagnostic algorithm for latent tuberculosis infection.

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¿Cómo realizamos el cribado de infección tuberculosa latente en pacientes candidatos a terapias biológicas en España? Una encuesta multidisciplinar

Palabras clave:
Terapias biológicas
Infección tuberculosa latente
Enfermedad tuberculosa
Factor de necrosis tumoral alfa

RESUMEN

Introducción: El tratamiento con terapias biológicas aumenta la incidencia de enfermedad tuberculosa. La implementación sistemática del cribado de la infección tuberculosa latente en pacientes que van a recibir estas terapias ha conseguido reducir el riesgo de desarrollarla. En 2016 se publicó en España el Documento de consenso sobre la prevención y el tratamiento de la tuberculosis en pacientes candidatos a tratamiento biológico. El objetivo principal del estudio fue evaluar la adherencia al mismo.
Métodos: Estudio multicéntrico, descriptivo, observacional en forma de encuesta anónima online, difundida entre las diferentes sociedades médicas que trabajan con biológicos.
Resultados: Se recibieron 747 respuestas. La mayoría de los encuestados realizaba el cribado en el momento adecuado y con la indicación correcta (93,7%). Solo un 36,6% de los encuestados solicitaba las pruebas diagnósticas adecuadas, mientras que el 56,3% acertaron las indicaciones de quimioprofilaxis. Hasta el 96% conocía las pautas de quimioprofilaxis recomendadas, mientras que solo el 63,9% las iniciaba en el momento adecuado. La especialidad con más participación y que más realizaba el cribado de infección tuberculosa latente fue reumatología (54%). En la mayoría de los casos, los neumólogos participaban como consultores.
Conclusiones: Este estudio pone de manifiesto un bajo grado de adherencia a las recomendaciones, realizando un cumplimiento aceptable el 56% de los encuestados. Enfatizando en las pruebas diagnósticas adecuadas y en el algoritmo diagnóstico de infección tuberculosa latente, se podría reducir aún más la incidencia de enfermedad tuberculosa en los pacientes que van a recibir terapias biológicas.

Introduction

The emergence of tuberculosis (TB) among patients who start biologics for the treatment of immune-mediated inflammatory diseases has alerted the medical community to the risk of reactivated TB infection associated with these therapies.[1,2] The relative risk of TB in patients receiving these treatments has increased between 1.6- and 25-fold in recent decades,[2–7] and the agents specifically associated with an increased risk are the anti-tumor necrosis factor-alphas infliximab and adalimumab. Two North American studies observed increased incidences of TB in patients with rheumatoid arthritis treated with infliximab (52.2–54 cases per 100 000 patients per year) compared to those who did not receive biologics (6.2 cases per 100 000 patients per year).[4,8–10] The French RATIO registry recorded an incidence of TB among patients receiving infliximab of 116.7 cases per 100 000 patients/year, 12.2-fold higher than in the general population.[11] In Spain, Carmona et al. described a fourfold increase in the risk of TB among rheumatoid arthritis patients receiving biologics, compared with the general population.[12] In Spain, more than 10% of candidates for biologics have latent TB infection (LTI), illustrating the scale of the population at risk of reactivated TB.[13]

In view of this evidence, international medical societies included LTI screening in their protocols as a requirement before starting biologics.[14] This intervention has led to a 78–90% decrease in TB, although no studies have formally evaluated adherence to these recommendations. The Consensus Document on the Prevention and Treatment of Tuberculosis in Patients who are Candidates for Biological Treatment was published in Spain in 2016.[15–17]

The Emergent Group of the Tuberculosis and Respiratory Infections Study Area of the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR) conducted this study in collaboration with various medical societies, in order to evaluate the degree of adherence to the recommendations of the national consensus document.

Materials and methods

Study design

This was a multicenter, descriptive, observational study based on an anonymous online Surveymonkey® questionnaire. Six scientific societies (Dermatology, Rheumatology, Digestive Diseases, Internal Medicine, Infectious Diseases, and Pulmonology) were invited to participate. The medical societies were contacted directly by email via their web site, and each invited their respective members to participate, using the online survey link.

Study objectives

The primary objective was to determine adherence to the consensus recommendations. Secondary objectives were to identify which specialists performed LTI screening, to determine if screening was carried out in the respondent's center and to identify heterogeneity in LTI management, recommendations with a lower degree of uptake, the most widely used chemoprophylaxis, and the role of the respiratory medicine department in the process.

Data collection

The survey consisted of 10 questions with 5 possible answers, some of which included an open-ended response (Table 1). It was not a prerequisite to be responsible for decision-making in this type of patient in order to participate in the survey. Indeed, since the responsibility and engagement of specialists varies among centers, we were interested to determine whether the professionals who might be involved at any stage of the process (whether prescribing biologics, seeing patients receiving these treatments, or managing tuberculosis) would know what to do. Respondents were not obliged to answer all the questions, and in some cases two answers were possible. Questions 1–4 collected general data, and questions