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ORIGINAL

Predictors of favourable outcome in inflammatory Crohn's disease. A retrospective observational study

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KEYWORDS
Crohn's disease;
Outcome;
Predictive factors;
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Abstract
Background: No studies have specifically searched for predictors of a favourable outcome that would allow a conservative therapeutic approach in adult Crohn's disease (CD).
Aims: To identify predictors of a favourable disease course over time at CD diagnosis.
Methods: We identified and included all patients diagnosed with CD between January 1994 and December 2003, who had CD with an inflammatory pattern and no perianal disease at diagnosis, and who were followed up for at least 5 years. Clinical and therapeutic features until December 2008 and losses to follow-up were identified. We defined a favourable outcome as the absence of stricturing and penetrating complications of the disease (including perianal disease), together with the absence of need for anti-TNF therapy or resectional surgery during follow up.
Results: One hundred and forty-five patients were included and followed up for a median of 96 months (IQR, 79–140). At diagnosis, location was ileal in 39%, colonic in 28%, and ileocolonic in 32%; 50% of the patients were active smokers, and 41% used immunomodulators. Eighty-two patients (57%) met the criteria for a favourable outcome at the end of follow-up. The only factor associated with a favourable outcome was isolated colonic involvement ($P = 0.022$), with 73% of these patients meeting the criteria for a favourable outcome.
Conclusions: A favourable outcome of initially uncomplicated CD is not easily predicted at disease diagnosis by means of clinical or epidemiologic factors. Nevertheless, patients with isolated colonic disease are less likely to have an aggressive course.

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PALABRAS CLAVE
Enfermedad de Crohn;
Resultado;
Factores predictivos;
Evolución de la enfermedad

Predictores del resultado favorable en la enfermedad de Crohn inflamatoria. Un estudio observacional retrospectivo

Resumen
Introducción: Ningún estudio ha demostrado de forma específica la presencia de predictores de un curso favorable en la enfermedad de Crohn (EC), hecho que permitiría un enfoque más conservador.
Objetivos: Identificar en el momento del diagnóstico de la EC los factores predictivos de un curso favorable en la evolución de la enfermedad.
Métodos: Se identificaron e incluyeron todos los pacientes diagnosticados entre enero 1994 y diciembre de 2003, con una EC de patrón inflamatorio, sin afectación perianal en el momento del diagnóstico y con un mínimo de 5 años de seguimiento. Se recogieron las características clínicas y de tratamiento hasta diciembre de 2008 o pérdida de seguimiento. Definimos como curso favorable la ausencia de complicaciones estenosantes o penetrantes (incluida la enfermedad perianal), así como la no necesidad de terapia anti-TNF o cirugía resectiva en el seguimiento.
Resultados: Ciento cuarenta y cinco pacientes fueron incluidos y seguidos por una media de 96 meses (IIQ, 79-140). Al diagnóstico, la afectación fue ileal en 39%, cólica en el 28% e ileocólica en el 32%. Así mismo, el 50% de los pacientes era fumador activo y el 41% usó inmunomoduladores desde el momento del inicio. Ochenta y dos pacientes (57%) presentaron criterios de curso favorable al final del seguimiento. Solo la afectación exclusivamente cólica se asoció a un curso favorable ($p = 0{,}022$) cumpliendo en este subgrupo en un 73% los criterios de curso favorable.
Conclusiones: El curso favorable de una EC no complicada al inicio no es fácilmente predecible mediante el análisis de factores clínicos y epidemiológicos. De todas formas, parece ser que los pacientes con afectación cólica exclusiva presentan con menor frecuencia un curso agresivo.

Introduction

Crohn's disease (CD) is a chronic idiopathic condition with recurrent symptoms but sustained intestinal inflammatory activity that usually leads to irreversible bowel damage and impairment of certain gastrointestinal functions. Although treatment options have been used for years in order to control symptoms, the current approach is to achieve sustained clinical, biological and even endoscopic remission,[1] from early phases of the disease.[2] To accomplish this goal, some therapeutic strategies have already been evaluated in the setting of RCTs.[3,4]

Categorisation of patients at diagnosis into high or low risk seems essential to tailor a personalised treatment according to disease prognosis. Most efforts have been focused on identifying clinical, serological and even genetic factors associated with a more aggressive course or poorer outcomes in CD to advocate a more intensive therapeutic approach right from disease diagnosis.[1,5–16] However, results are highly heterogeneous mainly because of different definitions for ''aggressive'' disease or ''poorer'' outcome. Another limitation of these studies is the fact that most patients will present many of the risk factors found at disease diagnosis, making these criteria of limited usefulness in clinical practice.

To our knowledge, no studies have specifically searched for predictors of a favourable disease outcome that would allow a conservative therapeutic approach. Whereas prediction of complicated disease would provide an important tool for earlier and more intensive therapeutic intervention, a long-term, uncomplicated disease course could avoid patient overtreatment. Therefore, the aim of our study was to identify factors at CD diagnosis associated with a favourable disease course over time.

Patients and methods

Patients diagnosed with CD between January 1994 and December 2003 were identified from the Inflammatory Bowel Disease (IBD) databases of three Spanish tertiary centres. Diagnosis of CD was based on conventional Lennard–Jones criteria[17] and patients were phenotypically characterised following the Montreal classification.[18] Patients were only included if they had an inflammatory pattern *without* perianal disease at CD diagnosis, in whom biological agents were not started or resective surgery was not performed within the first 3 months, and who were followed up at the same centre for at least 5 years from diagnosis or until death. Demographic, epidemiological, and clinical features (including treatment with immunomodulators or biological agents, surgery, changes in the Montreal classification during the follow-up period) were collected from diagnosis until December 2008, loss of follow-up, or death.

For the study purposes, we arbitrarily defined *favourable outcome* of CD as the absence of stricturing and penetrating complications of the disease (including perianal disease), together with no need for biological therapy with anti-tumour necrosis factor agents or resectional surgery, during follow-up. We decided that the use of immunomodulators (azathioprine, 6-mercaptopurine or methotrexate) did not preclude the *favourable outcome* definition because thiopurines are widely used even at disease diagnosis in