

Integrated gastroenterology and rheumatology ambulatory: an innovative approach for enteropathic spondyloarthritis early diagnosis

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Abstract

Patients with inflammatory bowel disease (IBD) may develop rheumatic diseases, particularly enteropathic spondyloarthritis (ESpA). Similarly, an IBD may develop in patients with SpA. Management of these patients in a dedicated ambulatory could be advantageous. We pioneered an integrated “GastroReumatology” ambulatory where a gastroenterologist and a rheumatologist with a long-lasting expertise in IBD and spondyloarthritis, respectively, simultaneously visit those patients referred for a suspected ESpA. A total of 101 different patients with suspected or known IBD and/or a rheumatic disease were visited. A new diagnosis of ESpA was eventually achieved in 13 (12.9%) patients, and further 12 patients with an already known ESpA were referred for an appropriate management. No cases of IBD in those patients with an established rheumatic disease were observed. Early diagnosis of ESpA is possible in a “GastroReumatology” ambulatory.

Key words

- inflammatory bowel disease
- enteropathic spondyloarthritis
- management
- diagnosis

INTRODUCTION

Patients with inflammatory bowel disease (IBD) may develop different extra-intestinal manifestations [1]. Among these, Spondyloarthritis (SpA) is the most frequently reported, with an incidence rate of 17-39% [2, 3]. Early diagnosis of SpA is crucial to perform a tight disease control with an impact on its natural history, particularly for preventing permanent disabilities [4]. However, diagnosis of SpA may be delayed in a substantial number of IBD patients for different reasons. Indeed, the disease may be asymptomatic in the early phase, the immunosuppressive/sulfasalazine treatment may mask non-specific rheumatic symptoms, or the gastroenterologist (and the patient) may underestimate inflammatory back pain. On the other hand, an IBD may develop in patients with SpA, although the incidence is near 1 case per year of follow-up [5]. Similarly, early diagnosis may be difficult, particularly when are present only vague intestinal symptoms that the rheumatologist (and the patient) may overlook or an immunosuppressive treatment is already performed. It is counterintuitive that an early diagnosis could reduce the intestinal disease progression, potentially preventing complications or surgical interventions.

In the current clinical practice, diagnosis and man-

agement of patients with coexisting IBD and SpA – defined as Enteropathic Spondyloarthritis (ESpA) – are usually carried on by a single specialist, which is the gastroenterologist or rheumatologist, according to the initial disease diagnosed. In such a scenario, a holistic patient management is prevented given that one of disease is beyond the direct field of specialist expertise. To overcome such a limitation, we pioneered an integrated “GastroReumatology” ambulatory in our Hospital, on behalf of Italian Society of Gastro-Rheumatology (SIGR).

METHODS

In such dedicated ambulatory, a gastroenterologist and a rheumatologist with a long-lasting expertise in IBD and SpA, respectively, simultaneously visit those patients referred for a suspected ESpA. In detail, patients were selected based on the presence of some clinical indicators – defined “red flags” (Figure 1) – suggestive of SpA and/or IBD, in agreement with Italian Expert Panel on the management of coexisting SpA and IBD [6]. In detail, a dedicated help-line was created where two experienced IBD nurses (AG and FDM), specifically trained for both IBD and rheumatic red flags, performed a brief interview of patients referred by

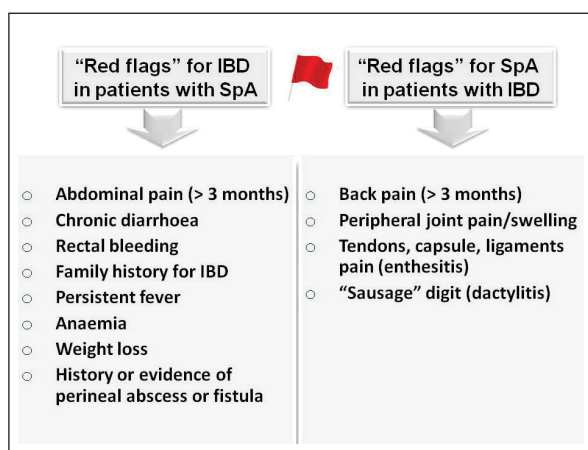


Figure 1
Clinical indicators (red flags) suggestive of Spondyloarthritis (SpA) or Inflammatory bowel disease (IBD).

their General Practitioners, and selected those with at least 1 suggestive symptom deserving an integrated visit. The nurses fixed the visit even for those patients with a doubtful red flag in order to avoid diagnosis missing.

RESULTS

From January 2015 to December 2018, 132 visit sessions were performed, and a total of 101 different new patients were evaluated in this integrated ambulatory. Patients performing a control visit were excluded from this computation. According to standard diagnostic criteria for IBD and rheumatic diseases, 5 patients' groups were identified, as summarized in *Table 1*. As shown, a new diagnosis of ESpA was overall performed in 13 (12.9%) cases, including 4 patients presenting "red flags" for both IBD and SpA (Group 1) and other 9 patients with known IBD with only vague rheumatic symptoms who were eventually diagnosed with a SpA by the rheumatologist (Group 2). In addition, further 12 patients with an already known ESpA were referred by other physicians to be followed in our integrated "GastroReumatology" ambulatory (Group 3). In 15 pa-

tients with known SpA (Group 4), no cases of IBD were found. Moreover, in 26 patients without known IBD or SpA, but with musculoskeletal and intestinal symptoms (Group 5), no diagnosis of ESpA was performed. A joined therapeutic approach was started, and the appropriate follow-up was scheduled for all these patients. Of note, in our series, ESpA diagnosis was promptly performed in 1 patient of Group 1 who complained of chronic abdominal pain and peripheral joints pain for which she underwent a number of previous gastroenterology and rheumatology separate visits in other Hospitals during the last 3 years without achieving a definite diagnosis.

DISCUSSION

Diagnosis and management of patients with ESpA is generally performed by a single specialist, that is a gastroenterologist or rheumatologist, according to the initial disease diagnosed. However, by following such an approach, the final diagnosis of coexisting IBD and SpA is difficult and, not rarely, postponed. Indeed, a recent Italian study found that ESpA diagnosis in IBD patients was delayed by a mean of 5.2 year [7]. It is expected that an early diagnosis of ESpA could be implemented when a patient is referred to a dedicated ambulatory, instead of being separately – and sometimes repeatedly – referred to different specialists. The probability of response to anti-TNF- α treatment is reduced when this rheumatic disease is not diagnosed in an early phase, with an increased risk of permanent inability [8]. In our series, a new diagnosis of ESpA was performed in 9 (21%) out of 44 IBD patients, as well as in all 4 patients presenting with "red flag" for both IBD and rheumatic disease. In another Italian, large series of IBD patients, the ESpA was diagnosed in 9% of cases [7]. Therefore, presence of the so-called "red flags" for a rheumatic disease in IBD patients seems to be helpful in identifying ESpA. On the contrary, no cases of IBD were eventually diagnosed in those with a known rheumatic disease complaining of abdominal symptoms, most likely due to the small sample size. Indeed, in a recent systematic review and meta-analysis, the prevalence of clinically apparent IBD among

Table 1
Results of "GastroReumatology" ambulatory activity

Group	Setting	IBD	SpA
1	With "red flags" for IBD and SpA (N = 4)	2 Crohn's disease 2 Ulcerative Colitis	2 Peripheral spondyloarthritis 2 Axial spondyloarthritis
2	With IBD evaluated for SpA (N = 44)	18 Crohn's disease 26 Ulcerative Colitis	5 Peripheral spondyloarthritis 1 Enthesitis; 3 Axial spondyloarthritis
3	With known ESpA (N = 12)	8 Crohn's disease 4 Ulcerative Colitis	1 Psoriatic spondyloarthritis; 7 Peripheral spondyloarthritis 2 Axial spondyloarthritis; 2 Ankylosing spondyloarthritis
4	With SpA evaluated for IBD (N = 15)	15 no IBD	5 Psoriatic spondyloarthritis; 5 Peripheral spondyloarthritis 4 Axial spondyloarthritis; 1 Enthesitis.
5	Without known IBD or SpA with musculoskeletal and intestinal symptoms (N = 26)	26 no IBD	14 Fibromyalgia; 12 Orthopedic disorders

individuals with SpA has been estimated to be approximately 7% [9]. Based on this estimation, only 1 case was expected in our sample size. However, no patient in the group 4 presented with elevated faecal calprotectin values or showed endoscopic pictures suggestive of IBD. The presence of intestinal symptoms in these patients could depend, at least in part, on the use of non-steroidal anti-inflammatory drugs (NSAIDs) due to SpA symptoms.

There were some patients with at least one red flag in whom nor IBD nor rheumatic disease were diagnosed. This would suggest that the presence of these signs are sensible, but not specific. Indeed, some symptoms (persistent fever, anaemia, weight loss, chronic diarrhoea) included in the “red flags” for IBD are shared with other clinical conditions. Moreover, in order to exclude a missed diagnosis, even those patients with doubtful “red flags” were scheduled for the integrated visit.

The peculiarity of our Ambulatory consists not merely in offering a combined gastroenterological and rheumatologic visit, but that these clinical evaluations were performed by specialists particularly dedicated to IBD and SpA, respectively. Our preliminary data would suggest that diffusion of such an integrated “GastroRheumatology” ambulatory could be implemented, particularly in those hospitals where IBD patients are followed. In-

deed, the contemporary presence of a dedicated rheumatologist could be advantageous for an early ESpA diagnosis, with a prompt and shared management of these patients. Moreover, the combined management of patients with already known ESpA (Group 3) has resulted very useful in choosing the proper drug treatment expected to be effective for both conditions, in agreement with guidelines from Italian Expert Panel [6]. In detail, therapy was accordingly changed in 33% of patients in the Group 3. In the Group 2, the combined management allowed a prompt diagnosis of peripheral and/or axial articular involvement using the clinical and instrumental gold standards for diagnosis.

In conclusion, our data would suggest that in a dedicated “GastroRheumatology” ambulatory an early diagnosis of ESpA is possible, so that a better prevention of disease-related disabilities is expected. Last, but not the least, a more appropriate utilization of resources and a better perceived quality of care by these patients are also expected.

Conflict of interest statement

None.

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