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SAT0386

USEFULNESS OF THE FECAL CALPROTECTIN AS SCREENING TOOL FOR INFLAMMATORY BOWEL DISEASE IN PATIENTS WITH SPONDYLOARTHRITIS AND NO DIGESTIVE SYMPTOMS

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Background: Fecal calprotectin (FC) is a biomarker of bowel inflammation widely spread in diagnosis and follow-up of inflammatory bowel disease (IBD). It is classically estimated that 5% of patients with axial spondyloarthritis (SpA) also have IBD; coexistence of both conditions has definite impact in clinical decisions. Proactive detection of both diseases should be advisable, though appropriate screening tools are still lacking.

Objectives: To evaluate the usefulness of FC for the diagnosis of IBD in patients diagnosed with SpA with no clinical suggestive manifestations or previous diagnosis of IBD.

Methods: Patients from a Rheumatology clinic diagnosed with SpA who met ASAS criteria and did not present digestive symptoms suggestive of IBD were consecutively included. Demographics, clinical and analytical data of SpA (uveitis, HLA B27, acute phase reactants) at the time of inclusion, and treatment history were collected. Patients with a positive FC (> 50 mg/Kg) underwent ileocolonoscopy with biopsies of colon and terminal ileum. Patients who were recommended to avoid NSAIDs 2-4 weeks before stool collection and endoscopy. Patients with no endoscopic findings underwent a second determination of fecal calprotectin. If persisted positive, capsule endoscopy was performed to evaluate small intestine.

Results: 98 patients included; 47% male, mean age 46.1 (20-74) years. BASDAI 3.6 ± 2.5. HLA B27 positive in 78% of patients, high ESR in 31.6%, high CRP in 9.2%. FC positive in 49 patients (50%): mean 147 mg/kg (range 0-3038).

47 underwent ileocolonoscopy: In 13 cases (26.5%), endoscopic findings were suggestive of IBD (7 Crohn's disease and 1 ulcerative colitis). Microscopic inflammation was found in 2 additional cases. Among those 34 patients with normal ileocolonoscopy, 16 patients refused further investigations; among the remaining 18 patients, a second FC was positive in 16. Capsule endoscopy showed findings suggestive of small intestine IBD in 6 additional patients.

In patients with high FC levels, **those with high CRP and ESR were more likely to have IBD** (29% v 16% and 29% v 12% respectively). Patients with a history of **uveitis** (18% vs 12%) or **psoriasis** (33% v 16%) also had a higher prevalence of IBD, although none of those differences reached statistical significance.

FC was higher in **smokers** (72%v 44%; p=0.03). There were no significant differences regarding HLA B27. No statistically significant differences were found in FC between patients with high FC who were diagnosed with IBD and those who were not.

Conclusion: In our study, patients with SpA and no clinical feature suggestive of IBD who showed FC > 50 mg/kg had high prevalence of IBD, which could indicate the **usefulness of FC as screening tool for IBD in patients with SpA**.

Patients with SpA and other immune-mediated condition or elevated CRP, seem to be more likely to have subclinical IBD.

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SAT0387

ROLE OF HLA-B27 IN THE COMORBIDITIES OBSERVED IN AXIAL SPONDYLOARTHRITIS: DATA FROM COMOSPA

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Background: Comorbidities have merged as an important field in Spondyloarthritis, however there is few data about its relationship to genetic factors such as HLA-B27.

Objectives: To analyze the potential association between the presence of HLA-B27 and the different comorbidities observed in axSpA patients.

Methods: A comparative cross-sectional study including axSpA patients from COMOSPA registry. COMOSPA is a worldwide registry that includes a wide set of anthropometric and clinical variables from 3984 patients with spondyloarthritis. The registry also includes the most frequent comorbidities observed in spondyloarthritis such as obesity, hypertension, diabetes, hyperlipidemia, heart ischemic disease, stroke, renal failure, neoplasms, peptic ulcer, diverticulitis, chronic obstructive pulmonary disease, and the presence of osteoporosis. A descriptive analysis and a multiple logistic regression model was performed including all variables assessed.

Results: 2370 patients fulfilled ASAS criteria of axSpA patients and were included in the study. 1858 (78.4%) of them were HLA-B27 positive. HLA-B27 positive axSpA patients presented significantly higher percentage of male sex, longer disease duration, higher percentage of definite Ankylosing Spondylitis, higher CRP levels, and were also more frequent tobacco consumers and excessive alcohol intakers compared to the negatives. However, disease activity measured by BASDAI, BASFI and ASDAS-CRP were all significantly higher in the HLA-B27 negative patients compared to the positive ones.

The only association observed between any comorbidity and presence of gen HLA-B27 was the presence of osteoporosis. This association was independently significant even after adjusting in the multivariate analysis for all variables assessed.

Conclusion: The association observed between the gen HLA-B27 and the presence of osteoporosis in axSpA patients could be of great relevance given the impact of osteoporosis in the phenotypical frame of axSpA patients.

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SAT0388

CHROMOENDOSCOPY AND MAGNIFICATION COLONOSCOPY: ANALYSIS OF THE MUCOSA OF THE COLON AND ILEUM IN PATIENTS WITH SPONDYLOARTHRITIS AND GASTROINTESTINAL SYMPTOMS WITHOUT INFLAMMATORY BOWEL DISEASE

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Background: Digital chromoendoscopy with magnification is a technique that identify microscopic inflammation, with a better characterize, highlighting specific gastrointestinal findings showing a good correlation with histopathological features. Spondyloarthritis (SpA) patients with the presence of non-specific gastrointestinal symptoms, subclinical intestinal inflammation is defined by endoscopic and histological techniques

Objectives: To detect early structural inflammatory changes by chromoendoscopy and magnification colonoscopy in colonic/ileum digestive mucosa and establish its association with clinical variables in patients with SpA and gastrointestinal symptoms

Methods: In total, 180 patients with SpA (ASAS/criteria) were assessed by rheumatologists, of which (n=35) (19.4%) had an indication by a gastroenterologist to perform the chromoendoscopy, magnification colonoscopy and histological analysis. The association between clinical and colonoscopy variables were evaluated using the Chi square or Fisher's exact test. (Ethical/Code. 2017-023)

Results: The average age of the patients included for colonoscopy was 45.4±10.3 years, 57.1% were men and 42.9% presented the HLA-B*27 allele. Axial involvement (91.4%), inflammatory back pain (68.6%) and use of biological therapy (71.4%). High levels of calprotectin (25.7%), CRP>3 (14.3%), positive ESR (22.9%) and positive ANCA (8.6%) was observed. Regarding outcome measures of function and activity, BASDAI >4 (60%) and ASDAS-PCR >2.1 (80.0%) was observed

The loss of vascular pattern in the ileum was associated with high levels of calprotectin levels (p=0.002). At microscopic level, 80% of the patients who presented acute inflammation in the ileum had elevated calprotectin (p=0.013). Cryptitis (77.8%) in the ileum was associated with axial involvement (p=0.017). Ulcers and erosion in the ileum were associated with positive ESR (p=0.003). All patients who presented ulcerations and inflammation (64.3%) in ileum were HLA-B27 positive (p=0.029) and (p=0.052) respectively. The 50% of patients with atrophy of villi in ileum were receiving biological treatment (p=0.035)

Conclusion: Digital chromoendoscopy and augmentation colonoscopy provided an improved and detailed contrast of the surface of the gastrointestinal mucosa. The tissue sampling showed the loss of vascular pattern as main finding in ileum with interesting associations with fecal calprotectin levels in patients with SpA. The interest of proposing the active search for symptoms, signs and biomarkers of gastrointestinal involvement in patients with SpA without IBD is to define sub-clinical gastrointestinal involvement and early remission through an endoscopic evaluation and objective histological and propose a specific clinical and therapeutic treatment.

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SAT0389

FREQUENCY OF DISEASE FLARES UNDER LONG-TERM ANTI-TNF THERAPY IN PATIENTS WITH EARLY AXIAL SPONDYLOARTHRITIS: RESULTS FROM THE ETANERCEPT VERSUS SULFASALAZINE IN EARLY AXIAL SPONDYLOARTHRITIS TRIAL

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Background: Disease flares in axial spondyloarthritis (axSpA) might occur even in patients with otherwise stable disease receiving highly effective anti-inflammatory therapy such as TNF inhibitors. The frequency of disease flares, especially in patients with axSpA receiving long-term stable therapy, and factors associated with flares are not sufficiently investigated.

Objectives: The objective was to assess the frequency of disease flares and to identify factors associated with flares in patients with early axSpA receiving continuous long-term (up to 10 years) treatment with a TNF inhibitor etanercept.

Methods: In the ESTHER (etanercept versus sulfasalazine in early axial spondyloarthritis trial), patients with early axSpA (symptom duration ≤5 years) were treated with ETN (n=40) versus sulfasalazine (n=36) for 48 weeks [2]. After one year all patients were treated continuously with etanercept (n=17 patients temporarily interrupted treatment in the 2nd year to assess time to flare and were then (re-)treated with etanercept, except 4 patients who completed the study in sustained remission) for up to 10 years in total. Only patients who were continuously treated with etanercept for at least 6 months were included in the current analysis. The disease flare was defined as a worsening of the ASDAS by ≥0.9 as compared to the value obtained at the previous visit. Univariate and multivariable cox-regression analyses were performed to analyze the predictors of flares.

Results: Out of 76 patients who entered the study at baseline, 62 patients (n=32 with radiographic (r-) axSpA and n=30 with non-radiographic (nr-) axSpA) fulfilled the criterion of the continuous etanercept treatment. A total of 22 patients (35%) experienced at least one flare over the entire treatment period 10 patients (31.3%) in the r-axSpA and 12 patients (40%) in the nr-axSpA subgroup) - figure. A total of 81 flares occurred (33 and 48 in the r- and nr-axSpA subgroups, respectively) in the 10 years of follow-up. None of the documented disease flares resulted in a direct study withdrawal. The majority of flares occurred within first 4 years of treatment (figure). There were also no

statistically significant differences between nr- and r-axSpA in the time until the first flare (p=0.4, Log-rank test). In the multivariable Cox regression analysis normal CRP values (≤5mg/l), HLA-B27 negativity, higher physician global assessment, a longer symptom duration at study entry, higher spinal ankylosis and higher fatty degeneration in the sacroiliac joints but lower spinal osteitis scores and lower ankylosis scores in the sacroiliac joints at baseline MRI were associated with a higher risk for flares.

Conclusion: Disease flares according to the ASAS definition of clinically important worsening in axSpA based on ASDAS occurred ~1/3 of patients with early axSpA who received a treatment with etanercept for up to 10 years without major differences between r- and nr- forms of axSpA. HLA-B27 negativity, normal CRP, higher spinal ankylosis scores, higher fatty degeneration scores but lower ankylosis scores in the SIJ's at baseline MRI were associated with a higher risk for flares.

		all	≥1 flare	no flare
patients	n (%)	62 (100)	22 (35.5)	40 (64.5)
male	n (%)	38 (61.3)	16 (72.7)	22 (55)
age	mean (SD)	34.1 (8.3)	32.6 (7.8)	35 (8.6)
BASDAI	mean (SD)	2.7 (2)	1.8 (1.8)	3.2 (1.9)
ASDAS	mean (SD)	1.6 (0.8)	1.3 (0.7)	1.7 (0.8)

Figure 1. Baseline characteristics of all patients with with continuous ETC treatment.

		all	≥1 flare	no flare
patients	n (%)	62 (100)	22 (35.5)	40 (64.5)
male	n (%)	38 (61.3)	16 (72.7)	22 (55)
age	mean (SD)	34.1 (8.3)	32.6 (7.8)	35 (8.6)
BASDAI	mean (SD)	2.7 (2)	1.8 (1.8)	3.2 (1.9)
ASDAS	mean (SD)	1.6 (0.8)	1.3 (0.7)	1.7 (0.8)

Figure 2. Kaplan-Meier curves indicating time to first flare and flare free survival probability.

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