and enthesitis), with no interaction effect between both habits. Smoking seems to be associated with predominantly upper limbs arthritis while alcohol intake seems to be associated with a predominantly oligo/mono articular involvement. Future studies are required including the influence of psoriasis and psoriatic arthritis in the relationship between alcohol and smoking and its association with peripheral manifestations.

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Table 1. Association between peripheral musculoskeletal manifestations and smoking and alcohol.

	Peripheral joint disease with objective signs in the past			Peripheral enthesitis with objective signs in the past			Dactylitis in the past		
	Yes 2292	No 2169	OR (95%CI)*	Yes 765	No 3696	OR (95%CI)*	Yes 685	No 3776	OR (95%CI)*
Smoker ever	887 (38.7%)	1013 (46.7%)	OR 0.72 (0.63-0.82)	312 (40.8%)	1588 (43.0%)	OR 0.75 (0.63-0.89)	277 (40.4%)	1623 (43.0%)	OR 0.89 (0.75-1.06)
Alcohol ever	929 (40.4%)	882 (40.7%)	OR 0.82 (0.71-0.94)	276 (36.1%)	1535 (41.5%)	OR 0.69 (0.57-0.83)	299 (43.6%)	1512 (40.0%)	OR 1.01 (0.84-1.22)

*Mixed logistic regression using the country as a random effect.

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POS0966

IDENTIFICATION OF PATIENTS AFFECTED WITH ANKYLOSING SPONDYLITIS AND INFLAMMATORY BOWEL DISEASE OVERLAP USING COLLAGEN BIOMARKERS

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Background: Chronic inflammatory arthritis is a hallmark of Ankylosing Spondylitis (AS), where co-existence of inflammatory bowel disease, such as Crohn's Disease (CD) is prominent. The clinical overlap of AS and CD has raised the hypothesis that these conditions may have similar pathophysiological mechanisms. Both indications are characterized by an altered extracellular matrix turnover, where particularly collagens are remodeled.

Objectives: We investigated the association between biomarkers of collagen degradation in healthy controls and patients with AS, CD and AS/CD overlap, with the aim to investigate the biomarkers' ability to identify patients with AS/CD overlap.

Methods: Patients with AS fulfilling ASAS criteria (n=13), biopsy-proven CD (n=14), subjects with AS and CD overlap (n=10) and healthy controls (n=11) undergoing standard of care colonoscopies were included in the study. The collagen degradation biomarkers measuring type III, IV, VI and X collagen (C3M, C4M, C6M and C10C, respectively) were measured in EDTA plasma samples from all subject groups. Biomarkers were measured by competitive ELISAs. Statistical analysis was performed using an ANCOVA adjusted for age, an AUROC analysis and spearman correlations.

Results: The collagen biomarker C4M was significantly higher in patients with AS/CD overlap compared to AS, CD and HCs (all p<0.0001, Figure 1A). The blood levels of C4M in AS patients were significantly lower than HC (p=0.0003), while CD also showed a lower level compared to HC though not significant (p=0.0798). No difference was found between AS and CD alone. In an AUROC analysis, C4M showed a complete separation between the patients with AS/CD overlap compared to HC, AS and CD with an AUC=1.00; p=0.0001. No differences were found between the patient groups for C3M, C6M and C10C (Figure 1, B-D). 91.3 % of patients with AS, 92.8% of patients with CD and 60 % of patients with AS and IBD overlap were actively treated with TNF- α inhibitors, which may explain the suppression of the collagen degradation biomarker levels in AS, CD and AS/IBD overlap compared to healthy controls[1,2]. No correlations were found between the collagen biomarkers and CRP, BASDAI, SCCAI or HBI scores.

CONCLUSION:

Degradation of type IV collagen quantified by C4M showed a complete separation of patients with AS/IBD overlap, compared to AS, CD and HC patients, which indicates an excessive collagen degradation and epithelial turnover. This biomarker could potentially be used to identify patients affected by both manifestations, and guide treatment decisions.

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Figure 1. Levels of C4M (A), C3M (B), C6M (C) and C10C (D) in EDTA plasma from patients diagnosed with AS (n=13), CD (n=14), AS and CD overlap (n=10) and HC (n=11). Graphs are presented as Tukey box plots. Statistical significance: ****p<0.0001.

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POS0967

DESCRIPTION OF SACROILIAC CT FINDINGS IN PATIENTS WITH ANKYLOSING SPONDYLITIS AGED OVER 50 YEARS: PRELIMINARY RESULTS OF THE CASIAGE STUDY

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Background: Diagnosis of axial spondyloarthritis (SpA) is nowadays commonly made with the help of pelvic radiography or MRI. However, there is an important inter-observer variability for radiographs, and MRI is subject to possible false positives, and is not the best modality for studying structural lesions. Conversely, pelvic CT has an excellent specificity and appears to be more effective than radiography for the diagnosis of SpA [1]. However, CT findings in patients over 50 years of age have not been studied.

Objectives: To describe sacroiliac (SI) joint CT characteristics in patients with ankylosing spondylitis (AS), aged 50 years or older.

Methods: An observational, cross sectional study was performed using medical records from Besançon University Hospital's rheumatology department, which were screened to identify patients with AS. A search was then carried out for patients over 50 years old in the hospital's imaging archiving system to identify those who had benefited from a CT which included the SI joints in their entirety. Non-inclusion criteria were the existence of pelvic bone lesions and a history of pelvic radiotherapy. For each patient, CT was interpreted using a score previously used by Diekhoff et al. [2], dividing each SI joint into 12 regions, for each of which joint space narrowing (JSN), erosions, and sclerosis are assessed. For this study, we also observed the existence of

intra-articular gas and diffuse idiopathic skeletal hyperostosis (DISH) lesions for each region. Quantitative variables are expressed as mean $\pm$ standard deviation, qualitative variables as numbers and percentages. Wilcoxon rank-sum test was used to determine factors associated with a higher CT score.

Results: A total of 66 patients were included. Mean (SD) age was 65.10 ± 10.59 with a mean (SD) duration of disease of 22.87 ± 14.95 years. 60.29% were male, and 87.04 % were HLA-B27 positive. 40.30% had a bamboo spine. CT findings are described in Table 1. The vast majority of patients have a positive JSN score but significant erosions are found in only a minority of cases. This is partly explained by the fact that 55.9% of the patients had at least one complete bilateral ankylosis (and therefore no erosions) on one of the three slices studied. Bilateral ankylosis was associated with a longer duration of disease ($p < 0.001$) and presence of bamboo spine ($p < 0.001$). Also noteworthy is the low proportion of DISH compared to the general population in this age group, which is 15-25%. Factors associated with a higher total CT score were male sex ($p = 0.017$), longer duration of disease ($p < 0.001$), tobacco use ($p = 0.033$), presence of bamboo spine ($p = 0.004$), absence of DISH ($p = 0.045$) and absence of intra-articular gas ($p < 0.001$). The distribution of lesions appeared to be homogenous over all 24 regions studied (Figure 1).

Conclusion: CT findings in AS patients over 50 years of age are mostly represented by changes in joint space, with bilateral ankylosis present in half of the patients. AS appears to be a protective factor for DISH.

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Table 1. Sacro-iliac CT findings using a score modified from Diekhoff et al.

Mean total score (range 0-108)	70.36 $\pm$ 38.90
Presence of joint space narrowing	58 (85.29 %)
Presence of erosion	20 (29.41 %)
Presence of sclerosis	15 (22.06 %)
Presence of Intra-articular gas	22 (32.35 %)
Presence of DISH	3 (4.41 %)

Figure 1. Mean scores per region in the anterior, central and posterior SI slices (JSN: joint space narrowing (0-4), Ero: erosions (0-3), Scl: sclerosis (0-2)).

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POS0968

ARE THERE CLUES FOR THE SCREENING OF SPONDYLOARTHRITIS IN PATIENTS WITH INFLAMMATORY BOWEL DISEASES?

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Background: SpA is the most frequent extra-intestinal manifestation in patients with IBD (1). Questioning IBD patients in terms of SpA and referring patients to the rheumatology clinic is important for early diagnosis and treatment management.

Objectives: We aimed to diagnose SpA early by using the DETAIL questionnaire to IBD patients and to compare it with the study validated for each question (2).

Methods: In the Hacettepe University Gastroenterology Clinic, patients with IBD were questioned for musculoskeletal symptoms between March 2019 and September 2020. For this purpose, a validated DETAIL questionnaire consisting of 6 questions was asked. Patients with at least 1 positive out of 6 questions were consulted in the rheumatology clinic, and patients were evaluated for SpA by physical examination, laboratory, and imaging. For each question in the detection of arthritis in inflammatory bowel diseases (DETAIL) questionnaire, sensitivity, specificity, positive predictive value, negative predictive value, and likelihood ratio (LR) were calculated.

Results: 217 IBD patients were included in the study. Twenty patients with previously known rheumatologic diseases were excluded from the study. 49 (24%) of the remaining 197 patients had a positive answer to at least one question in the DETAIL query. 39 (20%) of these patients were evaluated in the rheumatology clinic, and 16 (8.1%) of them were diagnosed with SpA (spondylitis: 9, peripheral arthritis: 7) (Figure 1). In the DETAIL questionnaire, two patients answered 5/6 yes, five patients answered 4/6 yes, eleven patients answered 3/6 yes, ten patients answered 2/6 yes, and eleven patients answered 1/6 yes. In the six items of DETAIL, the best performances in discriminating patients affected by SpA were found in the second and fourth questions (LR + 2.9 and 1.57, respectively) (Table 1).

Conclusion: 41% of IBD patients who answered yes to at least one question in the DETAIL questionnaire were diagnosed with SpA. Especially those with sausage fingers or low back pain for at least 3 months seem more likely probability to be diagnosed with SpA. Unlike the validated study, the probability of having diagnosis of SpA was not observed in questions five and six, which questioning the inflammatory back pain parameters. The DETAIL questionnaire may be used as a useful screening tool for the detection of SpA.

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Figure 1. Flow chart of IBD patients in the study