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MULTICENTER VALIDATION OF THE DETAIL QUESTIONNAIRE FOR THE SCREENING OF SPA-IBD: A PRELIMINARY REPORT

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Background. Spondyloarthritis (SpA) is the most frequent extra-intestinal manifestation in inflammatory bowel diseases (IBD), since it may occur in up to 25% of patients. The early referral to a

Rheumatology Unit may lead to proper treatment and better outcomes for patients with suspect SpA. Recently, we have developed and preliminarily validated a self-administered screening question-

The DETection of Arthritis in Inflammatory bowel diseases (DETAIL) questionnaire

If you are suffering from an inflammatory bowel disease (Crohn's disease or ulcerative colitis), and if a physician never diagnosed you an arthritis, please answer to these simple questions:

	Yes	No
1. Have you ever had a finger or a toe and/or another joint swollen and painful for no apparent reason?		
2. Occasionally, has an entire finger or toe becomes swollen, making it look like a 'sausage'?		
3. Have you had pain in your heels?		
4. Have you ever had back pain lasting at least 3 months that was not injury related?		
5. Do you have low back pain in the morning and/or after resting that improves with exercise?		
6. Do you wake up at night because of low back pain?		

Thank you

For the Physician:

Score 1 point to each question answered Yes and sum them.

To use the nomogram: the final likelihood ratio (middle line) is the product of the likelihood ratios of the items answered Yes. Pre-test probability is 16.4% (left line), or the local prevalence of SpA in patients with IBD. Post-test probability (right line) is given by the intercepted point on the straight line connecting pre-test probability and likelihood ratio product.

A total score 23 or a post-test probability 275% is highly suggestive for the presence of a spondyloarthritis.

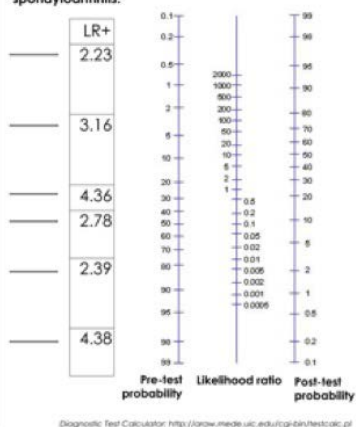


Figure 1 - The DETection of Arthritis in Inflammatory bowel disease (DETAIL) questionnaire. The questionnaire (on the left) was employed in 10 Gastroenterology and 10 Spondyloarthritis/Inflammatory Bowel Disease (GRADES-IBD).

Briefly, patients with IBD filled out independently the DETAIL in the outpatients' waiting room of ten Gastroenterology Units in Italy. Thereafter, within 2 weeks a blinded rheumatologist assessed all the patients, irrespectively of the DETAIL results, and classified them to be affected or not by SpA according to ASAS criteria.

naire, called DETection of Arthritis in Inflammatory boweL diseases (DETAIL). This study aims to validate the DETAIL questionnaire in a multicenter cohort of IBD patients enrolled at ten Gastroenterology and Rheumatology Units in Italy.

Materials and Methods. The DETAIL instrument is a 6-item questionnaire (Figure 1) developed through a Delphi method. From October 2018 to March 2019, consecutive adult patients with IBD, Crohn's disease (CD) or ulcerative colitis (UC), filled out independently the DETAIL in the outpatient waiting room. Thereafter, within 2 weeks a blinded rheumatologist assessed all the patients, irrespectively of the DETAIL results, and classified them to be affected or not by SpA according to ASAS criteria. The performance of the DETAIL was evaluated trough Bayesian analysis, defining for each item of the questionnaire the sensitivity, specificity, positive (LR+) and negative (LR-) likelihood ratios.

Results. Overall, 332 patients with IBD (156 CD, 168 UC, 8 indeterminate colitis; mean age 49.3 ± 14.4 y, mean duration of IBD 13.1 ± 10.3 y)

filled out the DETAIL questionnaire. After the rheumatological evaluation, 82 (24.7%) patients were classified as SpA-IBD. Of the six items of the DETAIL, the best performance was found in item 3 (LR+ 4.36), exploring Achilles entesitis, and in item 6 (LR+ 4.38), reporting inflammatory low back pain at night. A history of dactylitis showed also a good performance (LR+ 3.16). History of peripheral synovitis and the presence of chronic or low back pain with inflammatory features had a slightly worse performance. The combination of 3 out of 6 items answered in affirmative way yielded a post-test probability of SpA of 75% or more. The presence of alternative diagnoses, such as fibromyalgia, represented a major confounder.

Conclusions. The DETAIL questionnaire is the first screening tool for the early detection of SpA/IBD that has been validated by a multicenter study group.

Keywords: *Inflammatory bowel disease, Early referral, Screening questionnaire.*