bleeding, managed conservatively). After the mean follow-up time of 18.1±10.0 months, cumulative probability of reintervention (EST, EBD or surgery) at 6 months was 30.2% (95% CI 15.6-46.2%), 40.3% (95% CI 25.5-54.6%) at 12 months and 48.8% (95% CI 34.0-62.1%) at 18 months (Figure 2). Time to reintervention was not significantly affected by previous intervention, age of the anastomosis, sex or age of the patients, concurrent therapy and specific EST technique employed. CONCLUSION: EST is a novel endoscopic technique, which is both efficacious and safe to be performed in patients with IBD-related strictures.

Figure 1. Ileo-colonic anastomosis after the endoscopic stricturotomy (left) and clipping (right)

Figure 2. Cumulative probability of reintervention (endoscopic stricturotomy, balloon dilation or surgery) after endoscopic stricturotomy

MICROSCOPIC COLITIS IS ASSOCIATED WITH DECREASED BONE DENSITY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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INTRODUCTION: Although, microscopic colitis (MC) can be considered as spectrum of inflammatory bowel disease (IBD), MC is very different in many aspects; in terms of risk factors, symptoms, course of disease, treatment, and complication. Low bone mineral density (BMD) is previously known as complication of IBD. There are few data about MC and risk of bone density loss. We conduct this systematic review and meta-analysis to determine the association between MC and low BMD. METHODS: A comprehensive literature review was conducted using the MEDLINE, and EMBASE databases through October 2021 to identify studies that demonstrated association between clinical outcomes of interest, MC and low BMD. Pooled odds ratio (OR) and 95% confidence interval (CI) were calculated using a random-effect, generic inverse variance method. RESULTS: After two rounds of review, four studies met our eligibility criteria and were included in analysis. The result showed statistically significant association between MC and low bone density (pooled OR = 2.15, 95% CI: 1.06 - 4.38, p = 0.03) The forest plots and funnel plots are shown below. CONCLUSIONS: Our meta-analysis found significant association between MC and low bone density. Therefore, this data may suggest that BMD screening could be applied for MC patients, and such patients may have benefit from calcium and vitamin D supplementation. Further studies should be done to determine the significance of this issue.

NON-IMMUNE MEDIATED MUSCULOSKELETAL DISEASE IN CROHN’S DISEASE PATIENTS BEING EVALUATED FOR INFLAMMATORY SPONDYLOARTHRITIS - A PILOT STUDY

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BACKGROUND: Musculoskeletal (MSK) disease is the most common extra-intestinal manifestation of inflammatory bowel disease (IBD). The emphasis in the published literature has been on the inflammatory arthritis associated with IBD, spondyloarthritis (SpA). There is a lack of data regarding common, non-inflammatory MSK diseases such as osteoarthritis and fibromyalgia. This distinction is important, as these two conditions have different prognoses, require different clinical approaches and management. OBJECTIVE: To evaluate the prevalence of non-inflammatory MSK disease in a cohort of Crohn’s disease (CD) patients. METHODS: This was a cross-sectional study of a validated CD cohort from a single center registry in New York City conducted from 9/2019 - 1/2021. Recruitment was limited due to the COVID-19 Pandemic.

Patients were sent a four question MSK survey (Figure 1) addressing peripheral joint and back symptoms.
Those who answered positively to any question were considered to have MSK symptoms. All patients underwent one study visit with a rheumatologist that included: 66/68 tender/swollen joint count (TJC/SJC), Spondyloarthritis Research Consortium of Canada Enthesitis Index (SPARCC), Bath Ankylosing Spondylitis Metrology Index (BASMI), American College of Rheumatology fibromyalgia criteria, ESR and CRP. Disease activity was measured via a modified Ankylosing Spondylitis Disease Activity Score (ASDAS), Harvey Bradshaw Index (HBI), and Inflammatory Bowel Disease Questionnaire (IBD-Q).

RESULTS: 26 CD patients participated. Median age was 45.6±17.7 years, 35% were male, median disease duration was 17.7±14.2 years and 73% were on immunomodulatory agents for CD.

Median values (range) for the following physical exam and disease features were: TJC 10.8±13.2 (0-68), SJC 0.9±2.2 (0-66), SPARCC 2.8±3.1 (0-16), BASMI 1.5±1.0 (0-10, higher values: more motion limitation) ASDAS 1.5±0.9 (<1.3: inactive disease, >2.1: high disease activity), HBI 6.8±3.5 and IBD-Q 159±36. Median ESR and CRP were 18.9±22.2 mm/hr (normal 0-22) and 0.6±0.5 mg/dL (normal<0.7), respectively.

16/26 (62%) reported MSK symptoms. 7/16 (43.8%) had features of SpA, while 9/16 (56.3%) did not have evidence by history or exam of SpA and were therefore considered to have non-inflammatory MSK disease. 10/16 (62%) were considered to have non-inflammatory disease activity by ASDAS (1.5±0.9). ASDAS 3.1 (0-16), BASMI 1.5 (0-10, higher values: more motion limitation) ASDAS 1.5±0.9 (<1.3: inactive disease, >2.1: high disease activity), HBI 6.8±3.5 and IBD-Q 159±36. Median ESR and CRP were 18.9±22.2 mm/hr (normal 0-22) and 0.6±0.5 mg/dL (normal<0.7), respectively.

CONCLUSION: MSK conditions were very common in this pilot cohort. Though features of SpA were present in almost half of patients, non-inflammatory MSK disease was present in the majority of those with MSK symptoms. While both rheumatologists and gastroenterologists need to recognize the importance of SpA, it is additionally essential to understand that the most common MSK disease in IBD may be non-inflammatory, which has distinct implications for management. Future studies should examine the prevalence of these conditions in larger cohorts of IBD patients.