**Prevalence of Spondyloarthropathy in Puerto Rican Patients with Inflammatory Bowel Disease**

**Introduction**: Inflammatory arthritis is the most common extraintestinal manifestation in patients with inflammatory bowel disease (IBD). Approximately 20% of all IBD patients will present with peripheral arthritis, sacroilitis, or spondylitis. The purpose of this study was to determine the prevalence of spondyloarthropathy and sacroilitis in Puerto Rican patients with IBD.

**Methods**: Patients were obtained from the IBD specialty clinic and all had a diagnosis of ulcerative colitis or Crohn’s disease. All the patients who agreed to participate were entered in the study. Patients completed a questionnaire and underwent a physical examination. Radiologic examination of the lumbosacral spine and sacroiliac joints was performed. Blood samples were obtained for determining human leukocyte antigen class I and were serologically analyzed in the pathology department laboratory. Data were analyzed by using SPSS 10.0 for Windows.

**Results**: One hundred patients were enrolled; 57% had ulcerative colitis, and 43% had Crohn’s disease. Fifty percent were female, and the mean age was 37 years (standard deviation 14.96 years). Seventy-seven percent reported history of joint pain, and 47% reported limitation due to joint pain. Physical examination revealed peripheral synovitis in five patients and spinal tenderness in 46 patients. Of the 100 patients, 42 had inflammatory back pain and fulfilled the criteria for spondyloarthropathy. Radiographs were obtained in 76 patients. They revealed grade 2 or greater sacroilitis in 10 patients (13%) and ankylosing spondylitis in two patients (2.6%). Of the 82 patients with blood samples, human leukocyte antigen B27 was found in five patients (6%).

**Conclusions**: Of the study population of Puerto Ricans with IBD, 42% had spondyloarthropathy. This prevalence is higher than reported in Caucasians (20%–30%). Sacroilitis had a similar prevalence as reported in Caucasians, but the prevalence of peripheral arthritis was much lower. (Ethn Dis. 2008;18[Suppl 2]:S2-225–S2-229)

**Key Words**: Spondyloarthropathy, Inflammatory Bowel Disease, Puerto Rican

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**INTRODUCTION**

Inflammatory bowel disease (IBD) comprises the clinical entities of ulcerative colitis and Crohn’s disease. These are chronic, idiopathic, inflammatory diseases of the gastrointestinal tract that share common symptoms such as diarrhea, abdominal pain, fever, and weight loss. Ulcerative colitis involves all or part of the colon, and Crohn’s disease commonly involves the terminal ileum and proximal colon.¹ The pathophysiology of IBD is not well understood but involves dysregulation of the intestinal mucosal immune system with subsequent liberation of inflammatory cytokines that initiate and perpetuate the inflammatory response.

The prevalence of IBD in Puerto Rico in 1996 was 106.1 per 100,000 inhabitants; 41.4 per 100,000 for Crohn’s disease and 62.2 per 100,000 for ulcerative colitis.² The incidence was 3.1/100,000 in 1996 and 7.74/100,000 in 2000.³ Extraintestinal manifestations occur in 21%–36% of patients with IBD.⁴ Almost every organ system can be affected. The pathogenesis of these extraintestinal manifestations is not well understood, but the affected intestinal mucosa may provide an inflammatory immune response that may be the cause of the manifestations. The most common extraintestinal manifestation in IBD is arthritis, which occurs in 2%–20% of patients.¹ It may present as peripheral or axial disease. Peripheral arthritis occurs in 5%–20%, and the risk increases with the extent of the colonic involvement. Axial arthritis occurs in 2%–25% of patients and does not parallel the bowel inflammatory activity. Axial arthritis may be divided into spondylitis or isolated sacroilitis.³ Spondylitis is a type of spondyloarthropathy, which includes a group of arthritides that share clinical, biological, and genetic characteristics (presence of the human leukocyte antigen [HLA] B27 gene). Spondyloarthropathy includes ankylosing spondylitis, psoriatic arthritis, and reactive arthritis. The prevalence of spondyloarthropathy in the general population is 2%. However, in patients with IBD the prevalence of spondyloarthropathy increases to 10%–35%.⁵ Besides arthritis, patients with spondyloarthropathy may also have uveitis, dactylitis, psoriatic lesions on the skin, and the HLA B27 gene.

The most severe subtype of spondyloarthropathy is ankylosing spondylitis, a type of axial arthritis that frequently causes disability. Its prevalence in the general population is .2%–1.2%; in IBD, the prevalence increases to 10%. Ankylosing spondylitis is more common among men and is more frequently associated with Crohn’s disease. Until recently, therapeutic armamentarium for patients with ankylosing spondylitis was limited, but the recent discovery of anti-tumor necrosis factor agents as effective therapy for ankylosing spondylitis mandates aggressive early diagnosis of this disease in order to prevent disability.⁶ The other type of axial arthropathy is isolated sacroilitis. It occurs in 2%–18% of patients with IBD as evidenced by conventional