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ANKYLOSING SPONDYLITIS IMPROVED FOLLOWING FECAL MICROBIOTA TRANSPLANTATION: TWO CASE REPORTS

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Introduction:

Ankylosing spondylitis (AS) is an autoimmune disease which causes inflammatory arthritis in the spine and sacroiliac joints. Symptoms of AS include back pain, stiffness and reduced mobility in the spine. Patients with AS are known to have subclinical gut wall inflammation and dysbiosis in the gut. There is no known treatment to cure AS. Here, we report incidental improvement in AS in two patients with irritable bowel syndrome predominant diarrhoea (IBS-D) who received fecal microbiota transplant (FMT).

Methods

Case one:

Female, 47 years of age, with known IBS-D, presented with recurrent abdominal pain, explosive diarrhoea 5 time a day, nocturnal bowel motions and urgency. At the same time, she was on salazopyrin and arava for her AS with limited improvement in symptoms. Stool testing was positive for *Clostridium difficile* toxin and she received 2 fresh FMT's (one via colonoscopy, one via enema) in 2016. Testing 1 month after FMT treatment was negative to *Clostridium difficile* toxin. The patient had no ongoing gastrointestinal (GI) symptoms. She also reported significant improvement in AS symptoms (specifically reduction in excruciating pain in lower back and hip). After five years, her IBS-D symptoms relapsed and she had another 2 FMTs (one via colonoscopy, one via enema) which resulted in improvements in GI symptoms and more improvement in AS than previous FMTs. Her CRP and ESR levels were normal pre and post treatment.

Case two:

Male, 68 years of age, with known IBS-D received fresh 2 FMTs (one via colonoscopy, one via enema) in 2005 for treatment of IBS-D. Prior to treatment he had abdominal pain, cramps and loose motion and AS symptoms including excruciating pain in the sacroiliac joint. He was on infliximab and analgesics for his AS. After FMT treatment, he reported resolution of all GI symptoms and AS symptoms. His pre and post CRP levels were 100 and 2.6 and ESR levels were 18 and 7 respectively. In 2009, he had antibiotic treatment for sinusitis and his GI symptoms relapsed. He had a further 5 FMTs, again with complete recovery of GI symptoms and continued AS remission.

Discussion:

We observed short-term and long-term improvement in AS symptoms after treating patients with FMT. Future prospective trials are required to confirm FMT as a treatment for AS.

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