INTRODUCTION: Patients with inflammatory bowel disease (IBD), whether Crohn’s disease (CD) or ulcerative colitis (UC), have known alterations in the enterohepatic circulation of bile acids (BA) that may contribute to chronic diarrhea, but the fecal BA patterns are not well described. We aimed to audit all patients with IBD who had fecal BA measurements as part of evaluation of chronic diarrhea at a tertiary care center.

METHODS: We applied our STARGEO platform to search Gene Expression Omnibus and GEO for transcriptome data from UC patients. We then analyzed the signature in Ingenuity Pathway Analysis.

RESULTS: Our analysis showed that Patients with the CD inflammatory phenotype had the highest rate of surgery with 51/68 (75.4%) and with ulcerative colitis (UC), had the highest rate of surgery with 32/57 (56.1%). Among patients with UC, 10/15 (66.6%) patients with ileal involvement had the highest rate of surgery with 64.2% and with colonic involvement had the highest rate of surgery with 43.7%.

CONCLUSION: Discussion: BAs may play a role in the pathophysiology of chronic diarrhea in patients with IBD, regardless of inflammatory disease activity. Future studies are required to assess the impact of fecal bile acid testing and treatment with BA sequestrants on inflammation and chronic diarrhea in patients with IBD.