

Beyond the Bowel: Secondary Extraintestinal Findings in IBD Patients Undergoing Comprehensive Ultrasound Assessment

Grigorios Petrousis^{1,2}, Sofia Rellou³, Gülden Bilican⁴, Charlotte Hedin^{1,2}, Francesca Bresso^{1,2},
Stephan L. Haas^{1,2}

¹Center for Digestive Health, Karolinska University Hospital, Stockholm ²Department of Medicine Solna, Karolinska Institutet
³Department of Gastroenterology, General Oncology Hospital of Kifisia Oi Agioi Anargyroi, Athens, Greece, ⁴Faculty of
Medicine Ankara, Gazi University, Ankara, Turkey

Introduction

Point-of-care ultrasound of the intestinal tract has emerged as a valuable tool for the rapid diagnosis and efficient management of IBD patients. The International Bowel Ultrasound Group (IBUS) advocates focused intestinal ultrasound (IUS). The Karolinska Centre for Digestive Health, a tertiary referral center managing approximately 4,500 patients with Inflammatory Bowel Disease (IBD), established a dedicated Gastrointestinal Ultrasound Unit in October 2023, providing advanced diagnostic services for both inpatients and outpatients.

Aim

The aim of this study was to evaluate the prevalence of secondary extraluminal pathological findings in IBD patients undergoing a comprehensive combination of abdominal and intestinal ultrasound examinations.

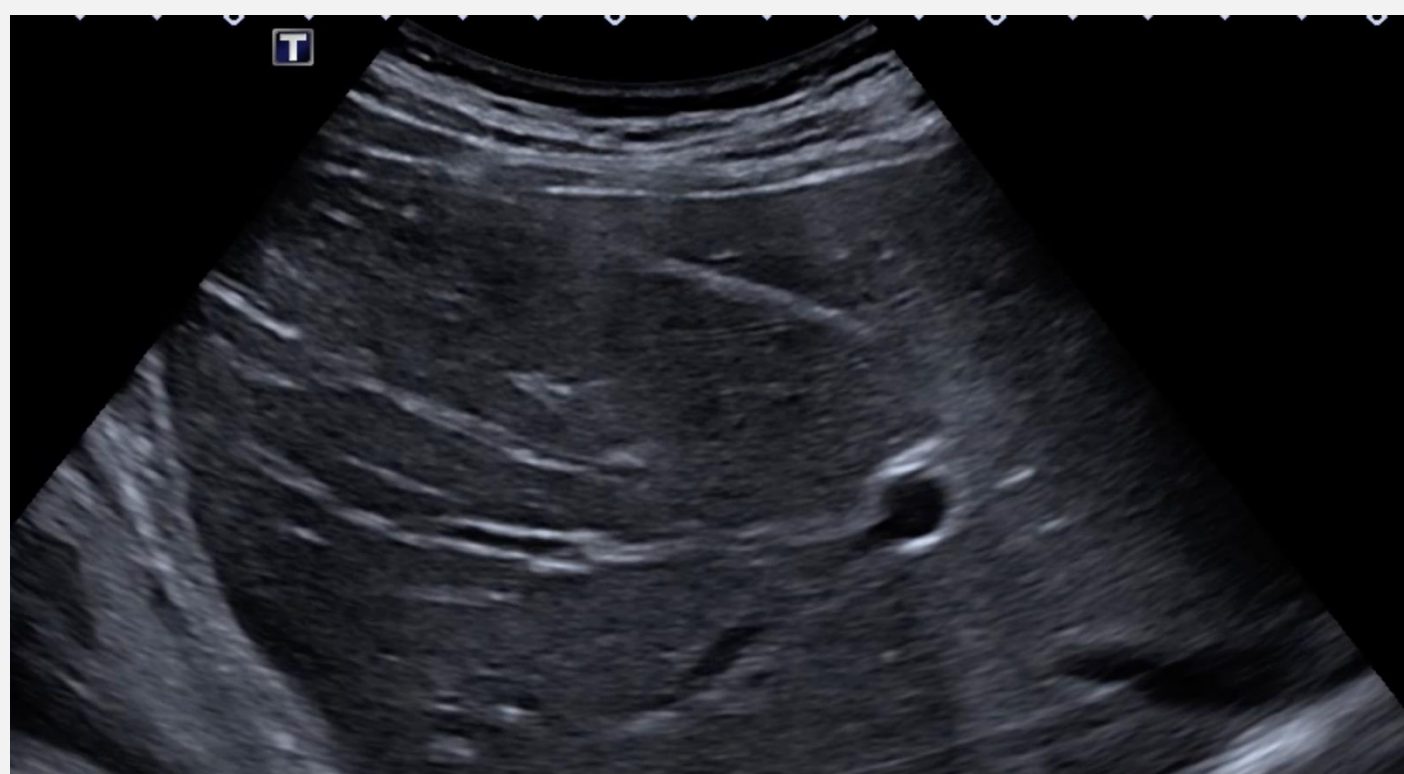


Fig. 1: PSC, newly diagnosed in a 30-year old female patient with UC. Confirmed with MR Cholangiopancreatography.

Methods

A retrospective analysis was conducted on all ultrasound examinations performed between October 4, 2023, and January 8, 2025. For patients with secondary findings, electronic patient records were reviewed to determine whether these findings were newly diagnosed.

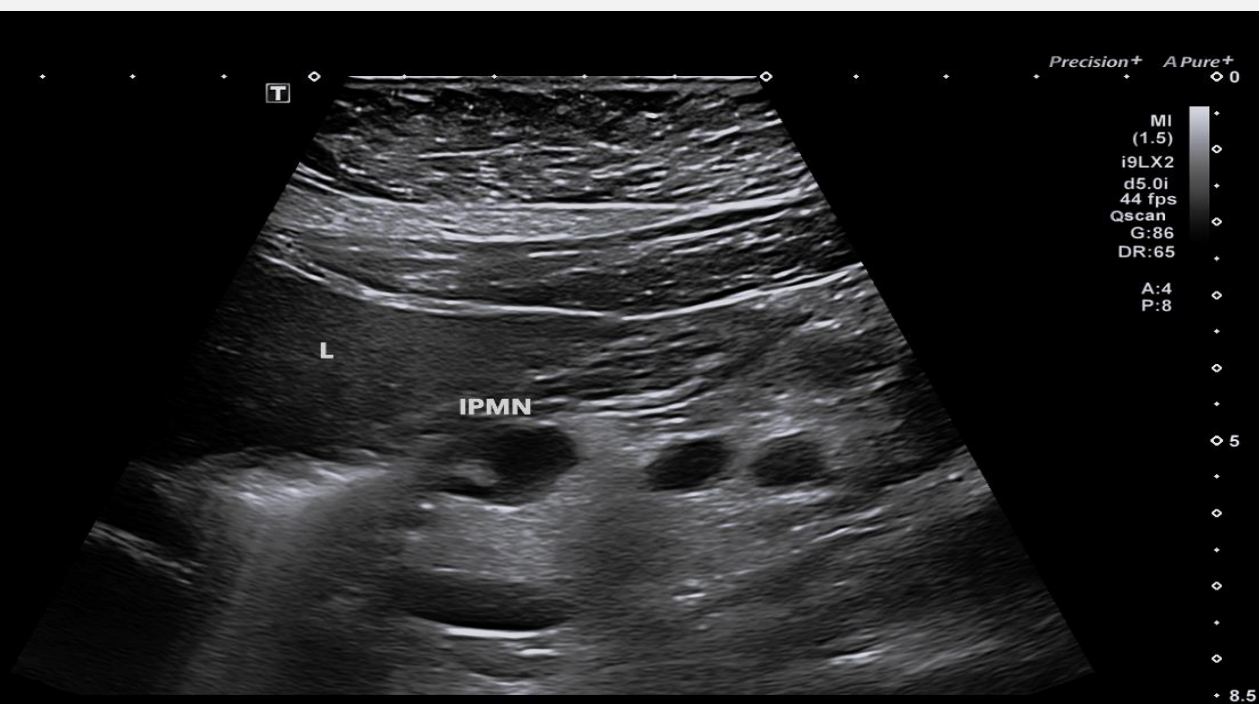


Fig. 2: s-IPMN: 13 mm cyst in the pancreatic head (communication with the main pancreatic duct). Confirmed with MRI of the pancreas

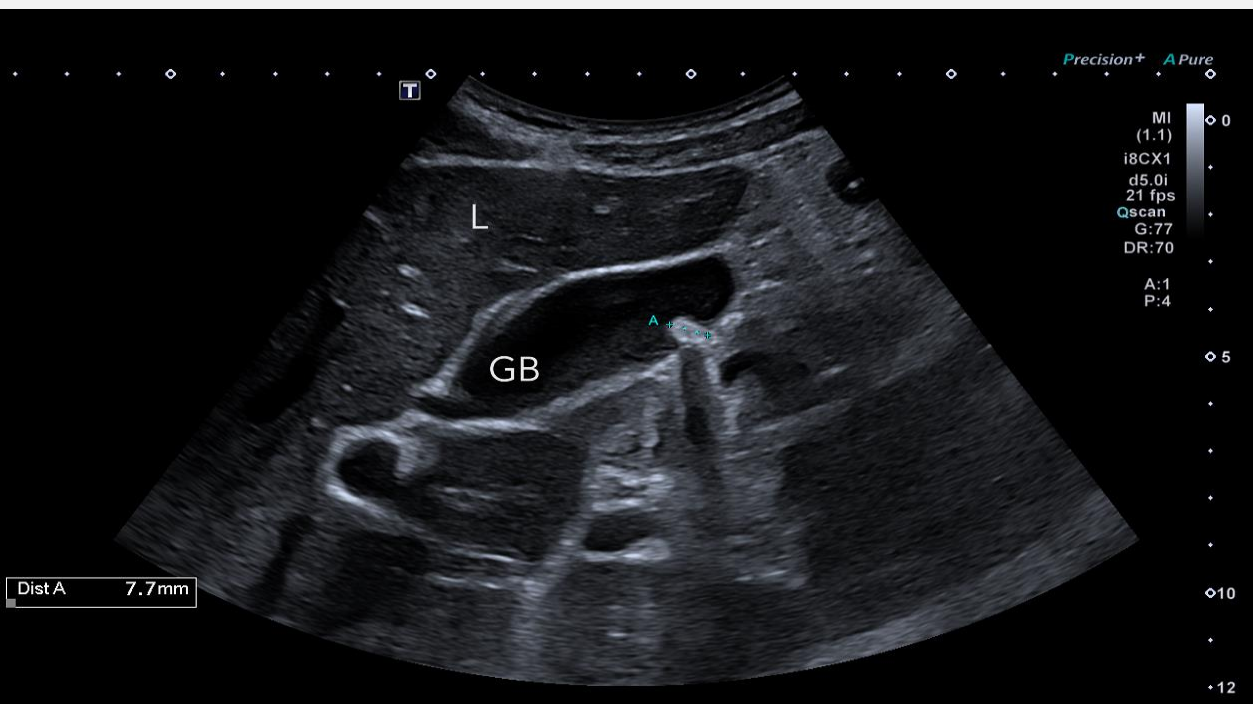


Fig. 3: Gallbladder polyps in a patient with UC. The largest measures 7.7 mm.

Results

A total of 348 IBD patients were performed (201 females, 57.8%), mean age 42,4 years. Intestinal inflammation was observed in 144 patients (42%), while 204 (58%) had normal intestinal findings. Secondary extraintestinal findings were recorded in 150 patients, totaling 195 observations, of which 113 (58%) were previously unrecognized. (see Table 1)

Location	Finding	Total	New Cases
Liver-related	Liver steatosis	42	33
	Enlarged liver	2	1
	Cholestasis	3	1
	Liver cirrhosis	2	0
	Liver cysts/Hemangiomas	9	3
	Portal hypertension	3	0
Gallbladder-related	Cholecystolithiasis	31	17
	Gallbladder polyps	6	4
	PSC signs	2	2
Pancreas-related	Pancreatic cysts/ IPMN	3	3
	Pancreatic lipomatosis	8	8
Spleen-related	Splenomegaly	10	4
	Accessory spleen	6	5
Urinary system	Renal cysts	14	4
Reproductive system	Ovarian cysts	14	8
	Uterus myoma	7	4
	Cervix: cystic Lesion	1	1
	Ureterocele	1	1
Lymphoid system	Enlarged lymph nodes	5	2

Table 1. Extraintestinal ultrasound findings in IBD patients.

Conclusion

A considerable proportion of patients with IBD demonstrated previously unrecognized extraintestinal abdominal pathologies, highlighting the essential role of comprehensive ultrasound examination that combines both intestinal and abdominal assessment. We recommend that physicians performing intestinal ultrasound in IBD patients, particularly those with extensive experience in abdominal ultrasound imaging, allocate additional attention to the assessment of extraintestinal structures, as early detection of such findings may have important implications for patient follow-up and management.