# Gastroenterology Hepatology and Digestive System



# Reverse Ileitis And It's Correlation With Colorectal Cancer And Cholangiocarcinoma; Systematic Review

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#### **Abstract**

The main aim of this paper is to conduct systematic review of reverse ileitis and it is correlation with colorectal and Cholangiocarcinoma. Paper examined whether backflush ileitis is a factor associated with colorectal cancer in ulcerative colitis. 500 patients with chronic ulcerative colitis (90 in total), who underwent therapeutic resection of colorectal cancer, were divided into 3 groups: pancolitis with reflux ileitis and pancolitis without reflux ileitis. Colitis and left colitis. At these three patient gatherings, the relationship with CRC was analysed. We examined disease volume, dysplasia, primary sclerosing cholangitis, age at diagnosis, disease effect, and sexual orientation as other risk factors.

#### Introduction

#### Aim of the research

The main aim of the paper is to perform meta-analysis and systematic review of reverse ileitis and it is correlation with colorectal and cholangiocarcinoma. Reverse Ileitis can be used alone as a "prognostic pathology or prognosis" for colorectal cancer and cholangiocarcinoma. The recognized risk factor for colorectal cancer (CRC) in ulcerative colitis is the duration and extent of the disease. Identifying unclear risk factors can further improve follow-up.

### Reverse ileitis during treatment for IBD

The term inflammatory bowel disease (IBD) refers to a heterogeneous cluster of genetic, immunological, and histopathological diseases with various underlying and extraintestinal manifestations. Ulcerative colitis (UC) and Crohn's disease (CD) are two important phenotypes of IBD, and there is no apparent difference in clinical presentation and prognosis. Imaging has shown that endoscopic and histological information as well as clinical research can be used to help identify the two structures, make assumptions, investigate disease movements, and educate treatment dynamics. Terminal ileal intubation and biopsy at the time of colonoscopy have become standard methods of examination and management of patients

with suspected or known IBD diagnoses. In approximately 25% of patients with UC, strong agitation is found in several centimeters of the ileum. The abnormal appearance of the ileum found by X-ray or endoscopic examination in patients with UC was originally called reverse ileitis [BWI]. The pathogenesis of this problem is unknown, but it may be related to the outflow of colon material into the terminal ileum, hence it is called "BWI".

Traditionally, this type of ileitis was thought to occur only in generalized / discoid colitis, but it has been confirmed that UC ileitis may also represent a primary exacerbation of the ileal mucosa. Although unusually rare, it also shows that a few BWI patients with UC may have "left bowel only disease." Once upon a time, when examined for barium, they recognized the problem of reverseing ileitis (these two types have a twofold difference in cleansing the colon, and bowel movements are negligible). The widely patented ileocecal valve (ICV) with permanent expansion of the terminal ileum may well support this view. The mucous membrane may have a grainy appearance. The ulcers are abnormal. Stenosis of the ileocecal valve is imperceptible, and the cecum is common. There will be no scratches or injuries on the pebbles. In UC patients with BWI, MRE may be a test option to assess the end of the ileum. Limiting the use of traditional endoscopy strategies in the

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small intestine and ignoring the possibility of ileal ulceration in ileocolonoscopy and histopathology may be different goals for MRE in UC. Although the incidence of IBD has increased over the past few years, and MRE has become an indispensable strategy for researching patients with IBD, BWI still cannot be diagnosed with this method. However, although MRE appears to be able to reveal iliac changes in UC via BWI. Therefore, the aim of this study is to determine whether the main BWI results from conventional barium tests (such as ICV dilation and ileal dilation) can be corrected using MRE technology, and to assess the usefulness of these results for BWI analysis in UC.

## Higher risk for developing cancer of colon or gallbladder

IBD occurs in 80% of patients with PSC. Then only 2-7.5% of people with IBD will develop PSC. UC accounts for about 80% of IBD cases, Crohn's disease (CD) accounts for about 10%, and fuzzy colitis about 10%. For UC versus (PSC / UC) and only UC OR progression, CRC is 4.6. After 10 years, the overall rate of progression in patients with PSC / UC compared with UC, colorectal cancer or dysplasia alone is 9% and 2%, respectively, and 20-31% and 5% after 20 years of disease. Sometimes CDs related to PSC have all the typical CD characteristics and usually mostly include a colon, and in many cases the CD delegator may be told that it is associated with a specific subtype of the IBD PSC trademark (i.e. E Colon (Proctitis and rectal cancer and reverse ileitis). Patients with IBD and PSC are younger than the diagnosis of IBD, and many patients are diagnosed with IBD earlier than the diagnosis of PSC.

IBD in PSC is usually quiet, even if the medical history is not obvious, and dynamic screening with colonoscopy can confirm that many patients with PSC have IBD. What is worrying is that at this time, patients may have dysplasia during a basic colonoscopy. In PSC patients with colitis, colon tumors (including dysplasia) usually predominate in the proximal colon (65%). The survey also showed that patients with PSC and severe damage due to imaging of the bile ducts have an increased risk of colorectal cancer and malignant neoplasms of the liver and biliary tract.

Another problem is related to the management of IBD patients in patients with PSC with PRP. In the past, some people have considered the occurrence of CR hyperplasia after liver transplantation, and some have advocated prophylactic resection of the proctocle, but this method cannot be confirmed by future research. Regardless of whether the patients were contrast-enhanced OLT or no OLT (OR = 4.4, 95% CI 0.9-

12.8), what is the picture of CRC enlargement? The five-year survival rate of patients undergoing resection of rectal cancer prior to OLT was compared with the presence of an ideal colon and the Endurance of patients with PSC / UC after OLT (86% endurance in two collections). CRC has not found a way out into a perfect colon bundle. Thus, the risk of colon cancer alone is not sufficient to legalize proctocolectomy for patients who have undergone liver transplantation for PSC / IBD or are in a state after liver transplantation. Observation of these patients is equivalent to observation of non-migratory patients.

IBD has a prolonged preclinical course, generalized colitis, dysplasia as analysed at first endoscopy, no correlation between disease severity and improvement in colorectal tumor formation, and a higher community of right tumors (usually difficult to identify), all of which legitimize CRC observation. Starting with PSC diagnostic season, IBD patients should have a colonoscopy immediately. Both the AASLD and EASL recommend and promote colonoscopy every one to two years. It is important to note that these recommended estimates are being revised in the current report. There is no doubt that this study shows that relapse of CRC progression within two years after diagnosis of PSC / IBD is equivalent to improvement in colorectal tumors within 8-10 years after simultaneous diagnosis. It should be noted that more than half of patients with CRC at the time of diagnosis have a more pronounced form than stage III disease. This information further assisted the AASLD and EASL regulations. Part of color endoscopy, thin-band imaging strategies, and confocal endoscopy to enhance the symptomatic capacity of white light colonoscopy remains to be decided. However, given the potential to reduce the confusion associated with proctocolectomy for patients with LGD, these tests, especially chromatographic endoscopy, may be considered in lieu of continuing the medical procedure. In some patients, these techniques can detect "horizontal ulcers" LGD, which may be suitable for endoscopic treatment (eg, endoscopic mucosal resection).

Since the diagnosis of PSC is made, colonoscopy should be performed every one to two years. Proctocolectomy is recommended for patients with dysplasia or potential cancer. However, patients should be technically evaluated for liver decompensation and be aware of the difficulties associated with medical procedures. For patients with PSC / IBD, the uncertainty of CR and reading the results of stage II CR dysplasia is very attractive and can save patients from potentially pointless careful mediation that may not improve overall endurance, especially when cirrhosis is present.

S.No.	Authors	Year	Title	Aim	Method	Findings	Conclusion
1	Carolina Palmela, Far- had Peerani, Daniel Cas- taneda, Joana Torres , and Steven H. Itzkowitz [1]	2018	Inflammatory Bowel Disease and Primary Sclerosing Cholangitis: A Review of the Phenotype and Associated Specific Features	This article focuses on inflammatory bowel disease and primary sclerosing cholangitis: an overview of phenotypes and associated specific characteristics.	The study looked at clear clinical signs of disease transmission, diagnosis, disease pathogenesis and PSC-IBD pheno- type.	There is conflicting evidence regarding the course of IBD in patients with PSC-IBD who have undergone liver transplantation and the risk of intermittent PSC. IBD may also be associated with an increased risk of cholangiocarcinoma in patients with PSC. In general, compared to the traditional IBD population, the PSC-IBD population has a greater risk of colorectal tumor formation. It is now recommended to have an in-depth colonoscopy performed annually.	In short, PSC-IBD is an amazing disease with a rare phenotype (Figure 2). A basic understanding of the instrument is required, which requires liverintestinal crosstalk and may facilitate the development of new methods.

S.No.	Authors	Year	Title	Aim	Method	Findings	Conclusion
2	Leon Gearoid Walsh, Bryan J Kenny, Mazen El Bassiouni, John Calvin Coffey [2]	2016	Cancer arising from the remnant mucosa of the ileoanal anas- tomosis leading to pouchectomy	The aim of this study is to verify and confirm that the cancer is said to have arisen from the residual mucosa of the iliac anastomosis, prompting confirmation of a pocket resection.	A baseline study based on the activity pathology report on the list showed that various adenomatous polyps appeared throughout the colon. There is no evidence of threats. Thereafter, the patient underwent annual diagnostic endoscopy and up- per gastrointestinal endoscopy. Before conversion, he was weak, blood was flowing from all buttocks.	Although endoscopy is performed every year, the patient's condition is still serious and new blood is being passed through each butt. Endoscopy and imaging revealed the presence of a pocket-associated adenocarcinoma. Accordingly, short-term radiation therapy and bag extraction were used for treatment. The remainder of the patient will remain in good health as recently and will follow the observation regimen from six months to one month, and after two years will gradually conduct an annual examination.	Thus, there is reason to believe that colectomy and ileorectal anastomosis cannot completely eliminate the risk of metachronous cancer improvement in FAP. 2 The development of colorectal resection and IPAA still carries a risk of cancer. Smith et al. [5] suggested that with the increase in FAP and the development of medical procedures, there is a risk of injury.
3	Xinyun Qiu, Jingjing Ma1, Kai Wang, Hongjie Zhang	2017	Chemopreventive effects of 5-aminosalicylic acid on inflammatory bowel disease-associated colorectal cancer and dysplasia: a systematic review with meta-analysis	The chemopreventive effect of 5-aminosalicylic acid (5-ASA) on patients with inflammatory bowel disease (IBD) has been widely reviewed; in any case, the results remain inconsistent.	The aim of this survey is to systematically review written and updated evidence on the effect of 5-ASA on the risk of colorectal cancer (CRC) and dysplasia (Dys) in patients with ulcerative colitis (UC) or Crohn's disease (CD)	5-ASA indicates that it has a chemopreventive effect on CRC / Dys in IBD. We conducted a systematic review and meta-analysis of 26 observational studies involving 15,460 people to assess the risk of CRC and Dys in IBD patients treated with 5-ASA. Determine the combined likelihood ratio (OR) and 95% confidence range (CI) for each scoring list.	Treatment with sulfasta- zidine did not show any identifiable protective capabilities, and little attention was paid to the measurements used. 5-ASA chemoprophylaxis affects CRC in patients with IBD (but not Dys). Additionally, compared to CD patients, UC patients benefit more from 5-ASA. A maintenance dose of mesalazine ≥1.2 g / day is an effective way to reduce the risk of CRC in patients with IBD.
4	Jessica K Dyson, Matthew D Rutter	2012	Colorectal cancer in inflammatory bowel disease: What is the real magnitude of the risk?	To study the relation- ship between colorectal cancer and inflamma- tory bowel disease: what is the real risk?	Eight to ten years after diagnosis, evidence-based rules require colonoscopy for patients with colitis and refer others based on risk factors (degree of disease, family history of CRC, post-inflammatory polyps, concomitant PSCs, and personal history of colon dysplasia) Check colon trauma).	Evidence-based rules allow colonoscopy for colitis patients 8-10 years after diagnosis and under control of risk factors (disease grade, familial CRC background, post-inflammatory polyps, associated PSC, history of colon dysplasia) For follow-up, colonic trauma intestines). Moving from irregular colon biopsy to biopsy focusing on abnormal areas characterized by new colonoscopy procedures (thin strip imaging, endoscopy with chromatography, confocal microendoscopy).	Taking all factors into account, risk factors for the diagnosis of IBD-CRC include the range, severity and severity of colitis, the presence of concomitant PSC, and a familial background of CRC. There is currently insufficient data to help determine the recurrence rate in young patients with IBD.
5	Rebecca Saich, Roger Chapman	2008	Primary sclerosing cholangitis, autoim- mune hepatitis and	Exploratory research focuses on the masking syndrome of primary sclerosing cholangitis, hepatitis of the immune system, and inflammatory bowel disease. overlap syndromes in inflammatory bowel disease	The research was based on experimental concepts. A small number of patient subgroups have AIHPSC coverage syndrome. Treatment of these patients depends on liver histology, serum IgM levels, autoantibodies, biochemical cholestasis, and cholangiography, as some of these patients may suppress immunity.	Since the earliest description of liver disease associated with bowel disease, significant progress has been made over a century ago. The relationship between inflammatory bowel disease and PSC, AIH and masking syndrome is currently the basis, and it is widely known in the study of transmission and course of the disease. Although there are many questions rather than answers, the concept of liver and gallbladder disease in inflammatory bowel disease has gradually taken shape.	Finally, it was concluded that the main hepatobiliary diseases associated with UC and Crohn's disease are specific PSC, liver cirrhosis, cholangiocarcinoma, and most hepatitis of the immune system, which illustrate a similar spectrum of hepatobiliary diseases. Whatever the reason, what is the result, what obscure events.

S.No.	Authors	Year	Title	Aim	Method	Findings	Conclusion
6	Carolina Palmela, Farhad Peerani, Daniel Castaneda, Joana Torres, and Steven H. Itzkowitz4	2018	Inflammatory Bowel Disease and Primary Scleros- ing Cholangitis: A Review of the Phenotype and Associated Specific Features	This article focuses on inflammatory bowel disease and primary sclerosing cholangitis: an overview of phenotypes and associated specific characteristics.	Patients with PSC-IBD have a distinct IBD phenotype, with pancolitis, reflux ileitis, and an increased frequency of rectal preservation. Although these patients often have extensive colon associations, their intestinal side effects are mild or even asymptomatic, which can delay the diagnosis of IBD. Although the IBD phenotype has actually been described in patients with PSC, the normal history and pathological behavior of PSC in patients with PSC-IBD are not conclusive.	These diseases can be influenced by genetic predisposition, insensitive interventions, and the regulation of intestinal flora. Clinically, patients with PSC-IBD demonstrate the possibility of exacerbation of the left-tilting colon, as well as an increase in the incidence of generalized colitis, rectal conservative and ileitis. Despite the high incidence of pancreatitis, bowel irritation is usually peaceful, resulting in mild symptoms, decreased steroid use and fewer hospitalizations.  Taking all factors into account, after IPAA, the incidence of bursitis in patients with PSC-UC is higher than in patients without PSC UC. Although PSC is associated with an unmistakable IBD phenotype, IBD has little effect on the characteristic history and painful behavior of PSC (including recurrent PSC after OLT). Generally, compared to the general IBD population, the general PSC-IBD population has a greater risk of developing CRN and CRC.	In addition, IBD may also be associated with an increased risk of CCA in patients with PSC. IBD affects approximately 70% of people with PSC. Although PSC and IBD may share a common trend, the pathogenesis of these related conditions is currently unclear.
7	Paulina Núnez F. a, Rodrigo Quera Fernando Gomollónd	2019	Primary sclerosing cholangitis and inflammatory bowel disease: Intestine—liver interrelation	In this article, we look at primary scleros- ing cholangitis and inflammatory bowel disease: the gut-liver relationship.	Initial research affiliation includes genetic abnormali- ties, epidemiological factors (men are more normal, no top- ographic examples), overall worsening of subclinical symp- toms, predominance of correct colon (endoscopy and histology), reflux ileitis, and rectal preservation. It also increases the risk of rectal cancer and bile duct cancer.	There is a key relationship between PSC and inflammatory bowel disease (IBD), and this is where we will focus. PSC in IBD is considered an extraintestinal manifestation [4] and may occur even before gastrointestinal symptoms worsen.	The aim of this review is to illustrate how IBD affects the movement of this element, the need and frequency of transplantation. We also looked at the latest data on the use of organic therapies in this patient group.
8	Paulina Núnez  F. a., Rodrigo Quera P. b.c. Fernando Gomol- lónd	2019	Primary sclerosing cholangitis and inflammatory bowel disease: Intestineliver interrelation	The purpose of this review is to show how IBD affects the movement of this substance, the necessity and reproducibility of transplantation. We also discussed the latest data on the use of natural remedies in this patient group.	A retrospective study11 included 8231 patients with IBD, including 222 patients with PSC and IBD (2.7%). In 40% of patients, intrahepatic bile ducts were affected; intrahepatic correlation was observed in 58% of patients had almost no canal involvement (found on biopsy); less than 2% of patients had extrahepatic inclusions.   separately. The order in which the bile ducts affect PSC.	The association between inflammatory bowel disease (IBD) and primary sclerosing cholangitis should be considered a distinct clinical entity. This association includes genetic abnormalities, epidemiological factors (men are more normal, no topographical examples), usually including subclinical exacerbations, correct colon strength (endoscopy and histology), reflux ileitis, and rectal preservation. It also increases the risk of rectal cancer and bile duct cancer.	There is a huge relationship between PSC and inflammatory bowel disease (IBD), and this is where we are focusing. PSC in IBD is considered an extraintestinal manifestation [4] and may appear even before gastrointestinal indications improve.

S.No.	Authors	Year	Title	Aim	Method	Findings	Conclusion
9	Jendrek et.al.	2017	Anti-GP2 IgA autoantibodies are associated with poor survival and chol- angiocarcinoma in primary sclerosing cholangitis	Pancreatic autoanti- bodies (PAS), which contain antibodies against glycoprotein 2 (not suitable for GP2), are usually associated with a mixing pheno- type in Crohn's disease, but are also found variable in frequency in patients with UC. In past reports, we have found that patients with GP2-positive UC have a high recurrence rate of primary sclerosing cholangitis (PSC). We hope to describe in this way those parts of the PSC that are hostile to GP2.	At the sera evaluation stage, 138 well-performing Norwegian patients with PSC were compared with sera from stable controls (n = 52) and UC patients without PSC (n = 62) by immunofluorescence. In addition, 180 German patients with PSC were approved along with 56 other non-PSC cholangiocarcinomas, 20 auxiliary sclerosing cholangitis (SSC), and 18 immune system hepatitis.	IgA to GP2 occurs significantly in large-scale bile duct diseases (cholangiocarcinoma = 36%, PSC and SSC account for about half). In PSC, GP2 IgA hostility can reliably identify patients with helpless endurance during development (Norwegian / German counterpart: p Log Rank = 0.016 / 0.018). Hostility towards GP2 IgA is associated with improved cholangiocarcinoma of the two PSC partners. In patients with GP2 IgA-positive PSC 5.0, the OR of cholangiocarcinoma was higher (p = 0.001). It is important that this affiliation remains independent of disease duration, bilirubin levels, and age.	IgA to GP2 can be considered a new type of marker in giant bile duct disease. In particular, in PSC, IgA against GP2 can distinguish between subgroups of patients with extreme phenotypes and helpless endurance due to cholangiocarcinoma. Thus, anti-GP2 IgA may be a clinically important tool for determining the risk of PSC.
10	Aida et.al.	2016	Prevalence of Sclerosing Cholangitis Detected by Magnetic Resonance Cholangiography in Patients With Long-term Inflammatory Bowel Disease	The common condition of primary sclerosing cholangitis (PSC) in patients with inflammatory bowel disease (IBD) is unclear. Attractive reverberation cholangiography (MRC) can be used to screen for PSC in patients with IBD.	We conducted a follow-up survey of population partners of 756 patients in the South-East Norway region who were found to have IBD between January 1, 1990 and December 31, 1993. Of these subjects, 470 were followed up 20 years after the event with routine CBC and ileocolonoscopy; The MRC screened 322 cases (222 cases of ulcerative colitis, Crowe 100 cases of Ang's disease). The MRC examination results were independently assessed by two radiologists.	On MRC assessment, 24 patients (7.5%) had PSC-like ulcers, and only 7 of these patients (2.2%) had PSC. Initially, one patient was missed and one patient had very little PSC, so the last PSC accounted for 8.1%. Compared to patients without PSC, a greater number of patients with suspected PSC developed generalized colitis, a high frequency of colectomy, and persistent IBD.	When examining long-distance IBD patients with MRC, we found that the advantage of PSC was associated with an increase of 3, depending on the indication. According to radiological data, 65% of patients with subclinical PSC are treated with modified IBD, with no biochemical abnormalities and no mild disease. PSC appears to develop in patients with subclinical disease, but long-term results are unclear.

#### Discussion

Qiu et.al. [3] focuses on inflammatory bowel disease (IBD) is a persistent idiopathic inflammatory disease of the gastrointestinal tract. Up to half of patients may have extraintestinal manifestations (EN) during the course of the disease. One such EIM is primary sclerosing cholangitis (PSC), which had no precedent in 1965. PSC is a persistent reformist cholestatic disease that manifests itself as irritation and fibrosis of the intrahepatic and extrahepatic ducts3, which can lead to cirrhosis and ultimately cirrhosis. Stage of liver disease. Orthotopic liver transplantation (OLT) is the main treatment option for PSC with 85% and 70% endurance at 5 and 10 years, respectively. Without OLT, half of the indicative patients would have given up money in 12-15 years [9].

Qiu et.al. [3] explained that in Western countries, the reported incidence of PSC ranges from 0.07 to 1.3 per 105 people per year, and the prevalence rate is 105.4.5, from 8.5 to 13.6.5. About 70% of patients with PSC have underlying

IBD, most of whom are ulcerative from time to time. Colitis (UC) occurs in over 75% of cases. In various examinations, the proportion of IBD in patients with PSC increased from half to 99%. Several factors can shed light on this huge change. In the current systematic review, the use of endoscopic and histological criteria for the diagnosis of IBD shows that the mean level of IBD is higher in patients with PSC. Geographic comparison can also increase this diversity. Levine et al. [10] described that Asian studies report that the advantage of IBD among PSC patients is lower compared to the European and American populations. Palmela et al. [1], in some of these studies, the diagnosis of IBD is established or prohibited on the basis of library information or annotations in the medical history without the need to review unique endoscopic or histological studies. To be honest, Sano and others write about Japan [11]. Using the severe case model, the incidence of IBD in patients with PSC was found to be 68.9%. Since the painful effects of IBD in patients with PSC are usually mild and sometimes asymptomatic, it is necessary to ensure the use of endoscopic and histological models when investigating the incidence of IBD in this population. On the other hand, in patients who have achieved IBD, the likelihood of detecting PSC is much lower and occurs in about 2–8% of patients with UC and 3% of cases of Crohn's disease (CD) [12].

According to Núñez [6] although there may be an underlying pathogenesis between PSC and IBD, these two problems can arise in different situations. PSC can be tested for colitis for many years after proctocolectomy. On the other hand, IBD can be analysed for many years after the fundamental diagnosis of PSC or even after OLT in general. In many reports, the diagnosis of IBD precedes the diagnosis of PSC. The current report by Palmela et al. [1] when comparing partners in double breeding, for the first time, extended recurrence of PSC was analysed (35% in 1993-1997 [13], half in 2003-2007, p = 0.0009). The congenital bias towards diagnosis is due to the fact that PSC may be in a quiet, asymptomatic period. Likewise, IBD associated with PSC may be somewhat suspicious or even asymptomatic and therefore may be misdiagnosed. Since 70% of PSC cases are associated with IBD, the presence of CD or UC makes the diagnosis of PSC easier. In patients with known IBD, the presence of established unexplained cholestasis forces people to simultaneously block PSC with attractive reverberant cholangiopancreatography or endoscopic retrograde Paulsen et al. [14] evaluated that cholangiopancreatography, especially if the Patient indicates biliary tract disorder. When the PSC was first analysed, half of the cases were simply abnormalities at the research center; these days, the normal symptoms of fever, tingling, and jaundice are rare. It is assumed that the patient is usually emaciated and itchy, and may also have jaundice, hepatosplenomegaly, or abrasions. Núñez [6] and Lunder [8] focuses on recurrent episodes of bacterial cholangitis with fever, chills, torture of the right upper abdomen, and jaundice can also be part of the clinic, usually causing 10% to 15% of patients overall. The diagnosis of PSC depends on the detection of diffuse multifocal lesion and expansion of the intrahepatic or potentially extrahepatic biliary tree.

#### Conclusion

Patients diagnosed with PSC should undergo a colonoscopic biopsy to prevent IBD-related or any injury, whether or not they have reported a gastrointestinal indication. Since most patients with PSC-IBD have mild side effects, even conventional endoscopy can be imagined, so histological examination is urgently needed to avoid underdiagnosis. Although evidence-based rules are not available if a recorded colonoscopy is negative for IBD, a repeat colonoscopy must be performed every 3–5 years to begin screening for possible IBD.

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