liver, filled with daughter cysts (**Figure 3**). The cyst was communicating with the hepatic flexure with multiple daughter cysts in the colon (**Figure 4**). The cyst fluid was clear and non-bilious and there was no evidence of other sites of hydatidosis.

The cyst was isolated with sponges soaked in povidone-iodine solution and a partial excision of cyst with drainage and right hemicolectomy with ileo-transverse anastomosis was performed. In the immediate postoperative period, the patient developed high grade fever with chills which was managed with intravenous antibiotics and steroids. The rest of his hospital course was uneventful and the patient was discharged on oral albendazole on the fifth postoperative day.

## Discussion

Hydatid cyst of the liver is a slow growing zoonotic parasitic disease with the liver being the most commonly affected organ. A mature hydatid cyst of the liver has two structural components. The inner layer is the endocyst which contains the laminated membrane and the germinal layer. The outer layer is called the ectocyst or pericyst, which is formed by the host tissue. The daughter cysts are formed by endogenic vesiculation from the germinal membrane. In case of a rupture or a defect in the laminated membrane, the germinal layer passes through and creates a satellite hydatid cyst by a process known as ectogenic vesiculation. The presence of daughter cysts in the colonic lumen and absence of peritoneal hydatidosis in our report, is an example of endogenic with ectogenic vesiculation.

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# Post cholecystectomy pseudotumor: beware of this masquerader!

## Introduction

The usually nontoxic and inert surgical sutures can at times incite a disproportionate inflammatory reaction leading to granuloma formation which is frequently misdiagnosed as a malignant lesion due to its confounding appearance on imaging.[1,2] This report emphasizes that even though the appearance of the lesion may be suggestive of malignancy, the possibility of a benign suture granuloma should be considered in the differential diagnosis, especially if the lesion appears at or near the site of prior surgery.

## Case report

A 60-year-old male presented with worsening jaundice, anorexia and weight loss for last 8 weeks. There was no significant past history except for prior cholecystectomy 5 years back. The patient had an uneventful recovery following the surgery except for a small periportal biloma which was successfully drained by percutaneous ultrasound guided aspiration. He remained asymptomatic until 8-weeks back when he started noticing darkening of urine and progressive discoloration of his eyes. At the time of presentation, his serum bilirubin was 10.9 mg/dl, and AST and ALT 35 and 40 IU/L, respectively. Contrast-enhanced CT abdomen revealed bilobar biliary dilatation with a dilated proximal common duct (**Figure 1A**). There was abrupt narrowing seen at the proximal mid-third of the common duct junction, due to an enhancing soft-tissue mass lesion. This soft-tissue lesion was seen in close proximity of the cystic duct stump (**Figure 1B**). MRCP confirmed the findings depicted at CT (**Figure 2**). In light of these imaging findings, a diagnostic

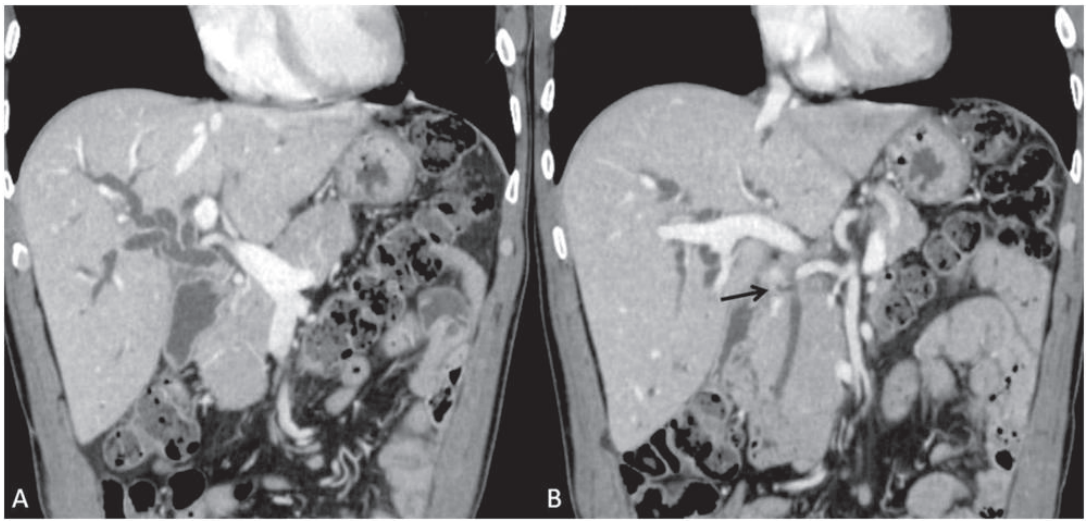


Figure 1: Coronal reconstructed CT image reveals bilobar intrahepatic biliary radicle dilatation and proximal common duct dilatation with an enhancing soft tissue lesion obstructing the common duct seen in close proximity with the cystic duct stump (arrow in fig 1B).

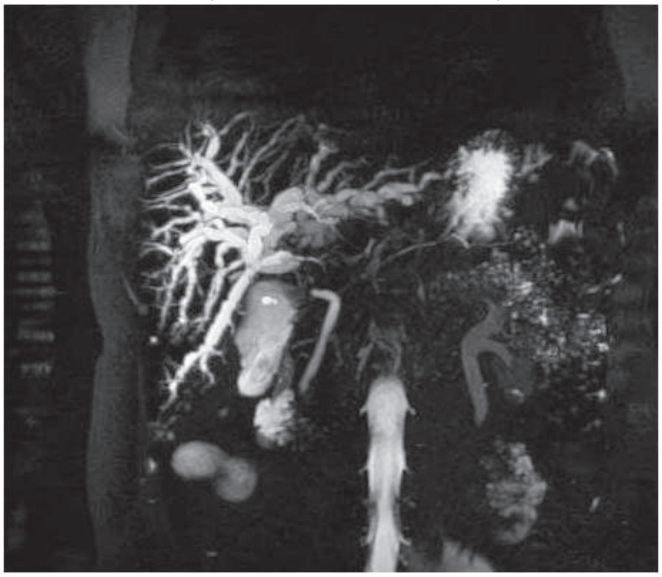

Figure 2: 3D-MRCP confirms the CT findings of a short segment biliary stricture with upstream biliary dilatation. Remaining mid and distal common duct is unremarkable.

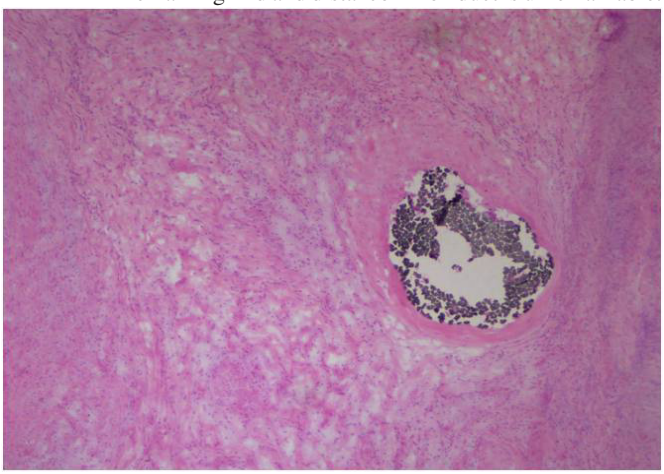

Figure 3: H&E staining (40X), frozen section showing suture along with fibro-collagenous proliferation in the bile duct wall.

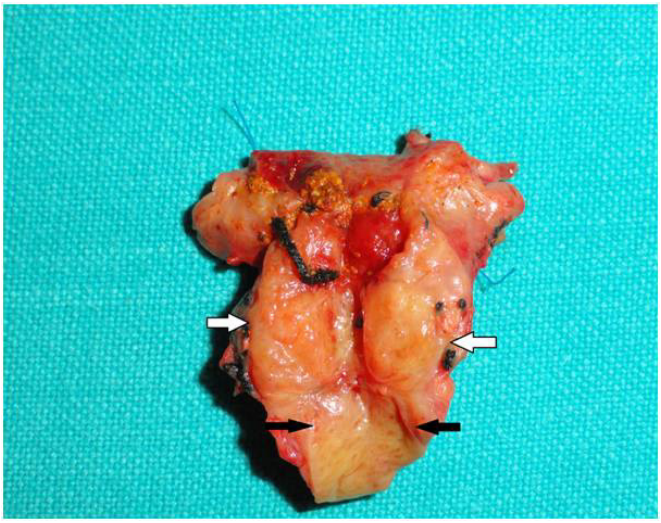

Figure 4: Surgical specimen of excised bile duct incised longitudinally demonstrating a 3x2 cm pseudo-tumor encasing the mid-bile duct causing luminal compromise (white arrows), displaying multiple silk sutures embedded within. Note the normal caliber of distal bile duct (black arrows).

possibility of cystic duct stump malignancy/ cholangiocarcinoma was entertained, however, endoscopic-ultrasound guided biopsy failed to show any malignant cells. The patient was still taken up for surgery with an interim diagnosis of biliary malignancy. Intraoperative frozen section displayed no evidence of malignant cells and instead exhibited fibro-collagenous proliferation (**Figure 3**). The excised mid-bile duct segment when incised longitudinally exhibited a 3 x 2 cm sized pseudo-tumor with multiple silk sutures embedded in it (**Figure 4**). Histopathological examination confirmed a post-cholecystectomy pseudotumoral suture granuloma (**Figure 5**).

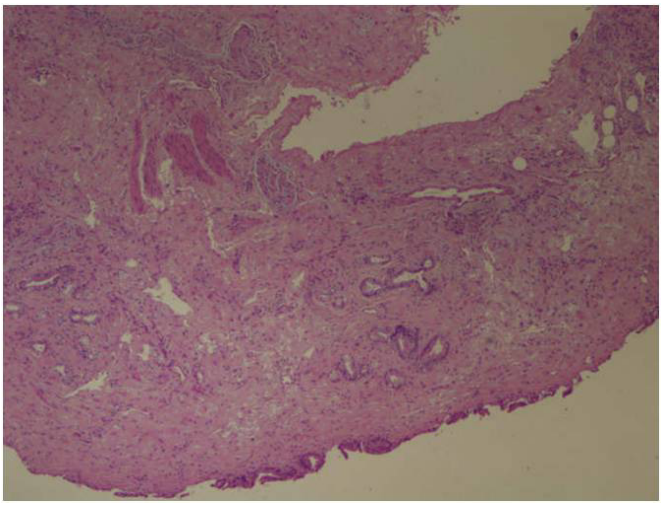

Figure 5: H&E staining (100X), showing fibro-collagenous proliferation in bile duct wall with benign glands in well defined lobules.

## Discussion

A suture granuloma is a recognized, but rare, complication of prior surgery with a variable time of onset, which may be many years after surgery.[1,2] A symptomatic suture granuloma can occur in any part of the body and have been reported subsequent to a diverse spectrum of abdominal and extra-abdominal surgeries such as herniotomy, herniorrhaphy, appendectomy, inguinal or urogenital surgery, gastric surgery, thyroidectomy, thoracic surgery and neurosurgery.[3-10] The lesion has been infrequently described following cholecystectomy.[11-13]

A suture granuloma represents the immune system's attempt to wall off substances, such as suture material, that it perceives as foreign but is unable to eliminate, ensuing the formation of a nodular mass of inflammatory cells and connective tissue. Braided suture and non-absorbable materials, such as silk, have been reportedly associated with a higher risk of granuloma formation.[2] The time of presentation is highly variable and as per reports it may vary from a few months to several years.[5,10] In the present case the lesion manifested 5 years after cholecystectomy, prior to which the patient had been doing well.

The appearance of a suture granuloma at imaging is highly nonspecific and it can manifest as a solid or a mixed solid-cystic lesion at ultrasound, CT or MR imaging. Owing to its complex appearance at imaging, a suture granuloma can easily masquerade a soft-tissue neoplasm. This becomes especially perplexing in cancer patients where it can mimic a residual tumor or tumor recurrence. Radiological features being similar to those of malignant masses, have often led to erroneous preoperative categorization. There are plenteous reports emphasizing that discrimination is frequently not possible on basis of radiological findings alone.[1,2,6-9,14]

In our case too, the presence of an enhancing biliary mass in an elderly patient with previous cholecystectomy raised the suspicion of a cystic duct stump malignancy/ cholangiocarcinoma. Due to its comparative rarity and probable lack of awareness, the likelihood of a suture granuloma was not even contemplated, even when the lesion was seen near the site of prior surgery in close proximity to the cystic duct stump. Moreover, the endoscopic ultrasound guided biopsy failed to yield any malignant cells.

This case is thus a learning experience educating us to be alert to this condition and consider the possibility of suture granuloma whilst evaluating patients presenting with a mass lesion at or near the site of previous surgery.

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# Rectal MALT lymphoma associated with ulcerative colitis

## Introduction

Primary colorectal lymphoma is a rare disease primarily affecting the elderly population and accounts for 0.2-0.6% of all colorectal malignancies.[1] There is an increase in incidence of non-Hodgkin's lymphoma in patients with inflammatory bowel disease on immunosuppressive therapy but the overall risk is low.[2] Rectal mucosa associated lymphoid tissue (MALT) lymphoma in the setting of ulcerative colitis is rare. Consequently, there is lack of adequate information regarding the appropriate management of rectal MALT lymphoma in patients with ulcerative colitis. We report a case of rectal MALT lymphoma in a young patient with ulcerative colitis in whom the diagnosis of MALT lymphoma was made after restorative proctocolectomy with ileal pouch anal anastomosis done for steroid refractory disease.

## Case report

A 19-year-old girl presented with a history of recurrent episodes of diarrhoea with passage of blood and mucus in the stools for the past 3 years. A colonoscopy done at that time showed presence of ulcerations and pseudopolyps throughout the colon and rectum. Colonic biopsy showed glandular disarray, cryptitis, mucus and crypt depletion which were compatible with ulcerative colitis. She was started on mesalamine but soon required high dose corticosteroids. Since then she had been on steroids and these could not be tapered despite multiple attempts. She also had had one episode of severe respiratory tract infection requiring hospitalization and treatment with parenteral antibiotics. During her present admission to the hospital she had mild pallor and per rectal examination revealed blood on the finger but no mass lesion was felt.

As she had steroid dependent disease she was counselled regarding the surgical management. A 3-stage proctocolectomy and ileal pouch–anal anastomosis was planned as she was on high dose steroids. She had a subtotal colectomy with an end ileostomy and Hartmann's procedure as the first stage. Histology showed disarray of glandular architecture with crypt branching. Cryptitis and crypt abscesses were present. Lamina propria was infiltrated by a moderately dense infiltrate of chronic lympho-plasmacytic cells admixed with polymorphs (**Figure 1**) confirming the diagnosis of ulcerative colitis.

Postoperatively her steroids were tapered and stopped over a period of two months. She had occasional bleeding per rectum which was managed with mesalamine suppositories. After 3 months, she had the second stage procedure, involving removal of the rectal stump and an ileal J-pouch–anal anastomosis with a diverting loop ileostomy. Gross examination of the rectal stump showed extensive ulceration in the rectal mucosa but no mass.

To our surprise, the histological evaluation of the proctectomy specimen showed expansion of mucosa by a dense

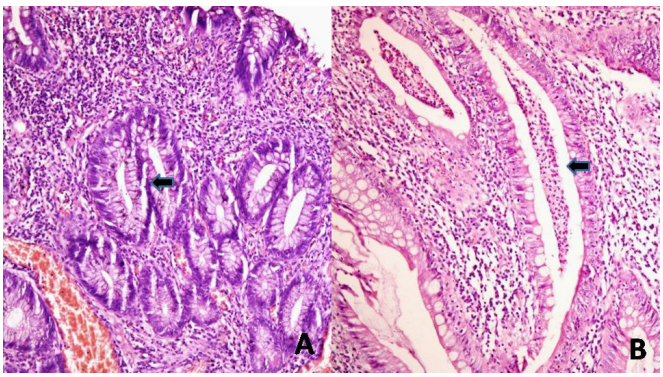


Figure 1: Photomicrograph of large intestine showing architectural disarray of colonic glands. There is crypt branching (arrow), dense chronic inflammatory infiltrate in lamina propria (Fig A, H&E x100). A crypt abscess can be seen. (arrow) (Fig B, H&E x 200).