

with the surgery. Through a Makuuchi incision, the abdominal cavity was entered. The umbilical hydatid was removed completely. An abdominal wall defect was noted corresponding to the location of the umbilical hydatid cyst and it was repaired to prevent any herniation. The liver hydatid was opened, contents aspirated and the wall was removed in fragments. Agenesis of the right lobe of liver was noted during the surgery and this was confirmed by the absence of liver to the right of gallbladder. There was compensatory enlargement of the left lobe of liver. However, no other anatomical anomalies were found. The hydatid cyst had occupied the space available due to agenesis of right lobe of liver and it had made a biliary communication resulting in death and calcification of the larva. The biliary communication was carefully closed with polydioxanone suture. A cholecystectomy was also done.

Postoperatively the patient had prompt recovery. Oral feeding was started on the second day and the wound remained healthy.

Discussion

Although the burden of hydatid disease is low in India, cases presenting as umbilical hernia must be managed, keeping the rare possibility of an abdominal wall hydatid in mind. Abdominal wall defects must be looked for after the resection of such a lesion and should be repaired if necessary. Liver atrophy following a hydatid should be differentiated from a hypoplastic liver because the latter is more prone to have other associated anomalies and might pose surgical surprises⁴. Biliary communication of hydatid cysts should be carefully looked for and repaired if found.

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Figure 2: Axial CT image of umbilical hydatid cyst.

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Self-Knotting of the Feeding Jejunostomy Tube: An Extremely Rare Complication

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Feeding jejunostomy (FJ) is an adjuvant therapy that provides nutritional support through the enteral route by situating a tube in the lumen of the jejunum. It is an excellent, safe and effective surgical procedure following

major gastrointestinal surgery to maintain enteral feeding. Enteral feeding is more physiological and cost effective than parenteral nutrition. However, it is not totally free from complications. The most commonly report complications are local skin infections, gastrointestinal symptoms (nausea, vomiting, diarrhea, abdominal blotting) and metabolic abnormalities. Rarely reported complications of an FJ are aspiration pneumonia, peritonitis and small bowl necrosis.^{1,2} We report an unusual complication in the form of knotting of a feeding jejunostomy tube.

Case Report

A 25-year-old female with corrosive ingestion underwent reconstructive surgery and FJ in October 2017. One and a half months later, she presented with complaints of inability to feed through the FJ tube. On examination, the outer part of the FJ tube was found to be normal but even after applying force, water could not be instilled. Hence, an abdominal X-ray (**Figure 1(A)**) and a gastrograffin study (**Figure 1(B)**) were done which revealed knotting and kinking of the FJ tube. On the same day, laparotomy was performed to remove the tube (**Figure 1(C,D)**) and a new FJ was created. The patient is on follow-up on an outpatient basis without any further issues.

Discussion

During the past three decades, FJ has become increasingly popular following any major gastrointestinal surgery, in oropharyngeal cancer, and in patients with bulbar palsy. Complications have been reported in 2%-12% of cases in literature.¹ The reported complications include mechanical, local, metabolic and gastrointestinal problems.² Of these complications, knotting of the FJ tube is extremely rare. Till date, only three cases have been reported.^{3,4,5}

The proposed mechanism for knotting of the FJ tube is a reverse direction of tube placement. In such a scenario, each time feeds are given, the tube is forced to go in the forward direction of peristalsis. In the resting position because of broad-based technique of FJ, it will get aligned in a proximal direction leading to intra-luminal knotting. Knotting of the FJ tube may be prevented by performing FJ in a proper broad-based manner (Wetzel)

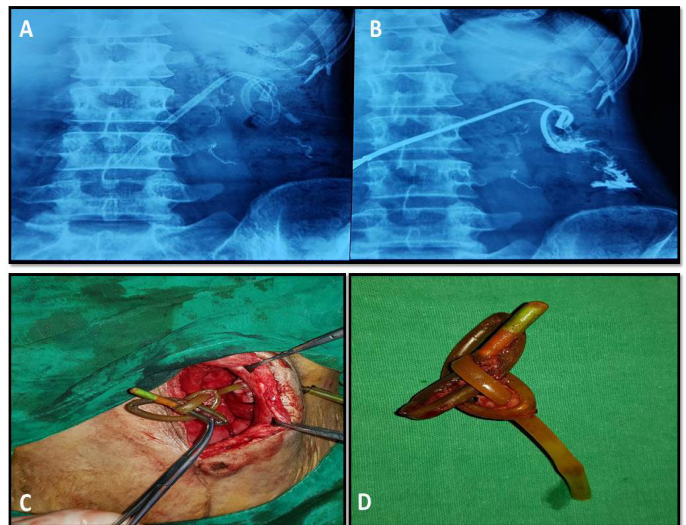


Figure 1: Self knotted feeding jejunostomy tube: (A) Abdominal X-Ray (B) Gastrograffin study showing Knot formation (C,D) Retrieved Self knotted feeding jejunostomy tube.

with the direction of the tube distally or towards the ileum and taking care that the direction of FJ tube is with the direction of peristalsis (distally or towards the ileum). Although knot formation is a relatively complication, it could require another surgery to resolve the problem. Moreover, our case highlights the fact that FJ tube placement is not a simple and risk-free procedure. Often, during surgical procedure, the placement of the FJ tube and abdominal closure is allocated to resident doctors after a tiring long surgery. Care should be taken in every case to prevent such complications and each FJ tube placement should be monitored.

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Endoscopic Ultrasound Guided Coil and Glue of Varices after failed Endoscopy and Non-Feasibility of Radiological Intervention: 3 Cases

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Portal hypertension related from gastric varices or ectopic varices may be difficult to control in some cases by endoscopic measures. Interventional radiology (IR) procedures like transhepatic intrahepatic portosystemic shunt or balloon guided retrograde transvenous obliteration are procedures of choice. However, IR procedures require

patent venous access and are not possible sometimes due to venous thrombosis. We present a case series of 3 cases with failed endoscopic intervention and non-feasibility of IR procedure. These patients were managed by endoscopic ultrasound guided coil and glue (n=2) or glue alone (n=1), control of bleed could be achieved in all.

Case Report

Case 1

A 55-year-old male, known case of cirrhosis, large hepatocellular carcinoma (HCC) with extensive portal vein tumour thrombosis and splenic vein thrombosis presented with melaena. A gastroscopy was done outside which revealed a large gastric varix for which glue injection was done. However, he had an upper gastrointestinal (GI) bleed again after 1 week and was referred to us. Endoscopic examination showed a gastric varix which was soft to touch in all parts. Endoscopic ultrasound (EUS) showed a large gastric varix with artefacts of the previously injected glue. Despite the endoscopic glue injected earlier, this varix was largely patent. TIPSS was not feasible due to portal vein thrombosis and balloon retrograde transvenous obliteration (BRTO) was not possible due to absence of a spontaneous suitable shunt. Due to the large size of varix, two coils were placed followed by injection of 1 ml glue + 1 ml lipiodol combination. EUS confirmed obliteration of blood flow in the varix at the same time as shown in **Figure 1**. There was no bleeding episode for the six months that followed after which the patient expired due to hepatocellular carcinoma.

Case 2

A 55-year-old male had hematemesis and melena. He was a known case of portal cavernoma, who had previously undergone a splenectomy for pancytopenia and hypersplenism. An upper GI endoscopy revealed a varix with active bleed in the duodenal bulb. The bleed could not be stopped after injection of undiluted glue by endoscopy. Gastro-intestinal surgery and interventional radiologic (IR) guided intervention was not possible due to splenectomy and portal vein thrombosis. He was taken for EUS guided coil and glue injection. EUS revealed a patent vascular channel inside the varix and 1 ml glue