

CASE REPORT

Removal of Malfunctioning Biliary Plastic Stent Via Percutaneous Transhepatic Cholangiography

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ABSTRACT:

Obstructive jaundice is one of the most common presentations of pancreatic cancer. Often the patients present when curative surgical resection is not possible due to late diagnosis. In these cases, palliation is the only option available. However in such cases, endoscopic retrograde cholangiopancreatography (ERCP) is not possible because of surrounding extensive inflammation. This study describes percutaneous transhepatic external biliary drain placement in patients with cancer of pancreatic head when surgical removal is not possible.

Keywords: Malignant obstruction, Pancreatic cancer, ERCP, Transhepatic cholangiopancreatography

INTRODUCTION:

Percutaneous biliary intervention is provided as an adjunct to planned surgical resection or as a palliative procedure for inoperable malignant biliary obstruction.¹ The removal of malfunctioning plastic biliary stents percutaneously is very difficult and not well described previously. The following study describes our clinical experience and different interventional techniques in the management of malfunctioning plastic biliary endoprostheses in patients with malignant obstructive biliary disease.

CASE:

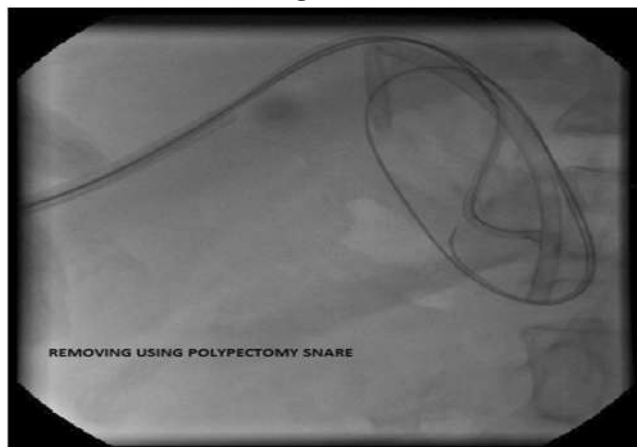
Here we describe a case of a 42-year-male patient, known case of carcinoma of pancreas who presented with obstructive jaundice in gastroenterology clinic, with previous history of gastrojejunostomy and endoscopic biliary plastic stent placement in some other tertiary care hospital. He presented with high grade fever, vomiting and upper abdominal pain. He was then attempted for ERCP but failed because of surrounding extensive inflammation. Then percutaneous transhepatic external biliary drain was placed to limit the risk of ascending cholangitis. After 3-4 days, the patient's

condition started to deteriorate as the LFTs were deranged and total leucocyte count reached up to 63,000/ mm³. Because the patient was not fit for surgery, this left us with no option than to proceed with percutaneous intervention. Hence he was again shifted to interventional radiology department and the plastic stent was effectively removed using the polypectomy snare via percutaneous approach and metallic stent was placed successfully as a palliative treatment. Percutaneous transhepatic cholangiopancreatography is usually performed in those clinical settings where endoscopic retrograde cholangiopancreatography is not possible or in the cases of its failure. Patient is now doing well clinically, with normal leucocyte count and liver function tests.

Figure: 1



Figure: 2



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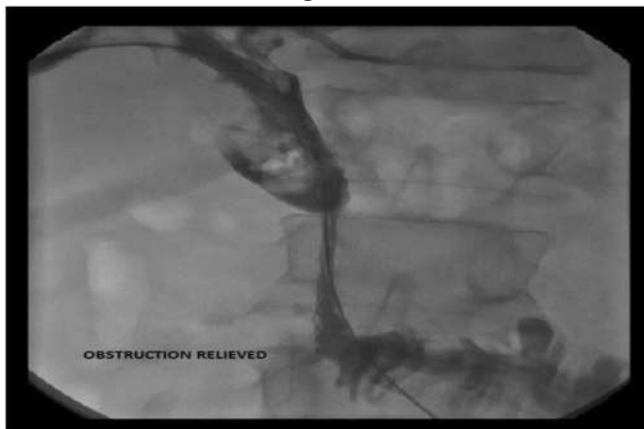
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Figure: 3



Figure: 4



DISCUSSION:

Malignant jaundice occurs when there is blockage of the biliary tract, either by neoplastic infiltration or external compression. The common neoplasms in majority of the cases are cholangiocarcinoma and adenocarcinoma of the pancreatic head.² Endoscopic retrograde cholangiopancreatography (ERCP) is considered as the first-line diagnostic and therapeutic modality in patients with jaundice secondary to malignant biliary obstruction. Palliation of these patients is achieved by insertion of plastic stents during the same session.^{3,4} Infection or colonization by bacteria can occlude the stent by forming bacterial clump or sludge formation,^{5,6} thus, increasing the risk of cholangitis. Other complications related to the stents include migration, occlusion, and intestinal perforation.⁷ Placement of percutaneous transhepatic external biliary drain is considered as the best option. This relieves jaundice and sepsis and decreases the risk of hepato-renal failure. In patients deemed unfit for surgery due to co-morbidity or an unresectable tumor, percutaneous biliary stenting is performed.¹ The percutaneous transhepatic approach may be a life-saving procedure in the management of

dysfunctioning plastic endoprostheses. Percutaneous transhepatic removal of the plastic stent can be applied using a goose-neck snare. Replacement of the plastic stent with a metallic stent that can expand to a diameter of 8-10 cm, which is three times greater than that of plastic stents in common use, may be a good option to overcome this problem.^{3,8,9,10}

CONCLUSION:

Biliary obstruction due to malignant strictures of bile ducts or irresectable hepatobiliary cancers may be relieved surgically. On the other hand, nonsurgical biliary drainage can be achieved either through percutaneous transhepatic approach or endoscopically. Percutaneous transhepatic biliary drainage (PTBD) is effective and appropriate for both tumor ingrowth and overgrowth. It is an alternative intervention after failed endoscopic management.¹ Many different options exist for management of the dysfunctioning plastic endoprostheses. The interventional radiologist should be familiar with different techniques and know that all these techniques can be performed with high success and very low complication rates.³

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