



INCIDENCE OF POST ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY (ERCP) PANCREATITIS (PEP) IN A NEW CENTRE IN THE DEPARTMENT OF GASTROENTEROLOGY OF KURNOOL MEDICAL COLLEGE.

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Introduction:

Acute development of pancreatitis is a serious complication of ERCP procedure and it results in significant morbidity, occasional mortality and increased health-care expenditure. The chance of occurrence of this devastating complication varies from 3 to 15 percent of cases in various studies worldwide¹. About 5 percent of post ERCP pancreatitis will follow a severe course, requiring prolonged hospitalization¹.

Aim:

As the PEP is a life threatening complication, we aim to reduce it by following standard recommendations of various experts in the field of therapeutic ERCP.

Methods and Materials:

Total 280 patients of obstructive jaundice were thoroughly evaluated before either CT scan abdomen or MRCP was finally done before embarking on therapeutic ERCP for various etiological conditions of obstructive jaundice. The duration of study in the department of Gastroenterology is from June 2014 to till date. 137 of 280 cases were referred from other departments in the same hospital. After the ERCP, these patients were followed for any development of pancreatitis.

1. Only patients who underwent therapeutic ERCP considered for the study
2. Pancreatic - like pain and hyperamylasaemia were evaluated either 6 to 8 hours or 24 hours after the procedure
3. Computed tomography scan of abdomen was performed in those patients with 24 - hour pancreatic pain associated with hyperamylasaemia more than three times the upper normal limit
4. Diagnosis of PEP was made according to standard Atlanta classification³, which mandates the presence of 2 of the three following features.
 - a. Pain abdomen typical of Acute pancreatitis
 - b. 3-fold elevation of amylase / lipase
 - c. Evidence of pancreatic inflammation on abdominal imaging³.

In order to decrease the incidence of PEP, we strictly adopted the following approaches.

- a. Selective cannulation of common bile duct.
- b. In case of difficulty of cannulation of CBD, pre-cut sphincterotomy was done in 12 cases.
- c. Balloon dilation of sphincter was not attempted.
- d. Pancreatography was not done routinely.

Results: Three patients developed features of Acute pancreatitis as per the latest Atlanta classification⁷ for Acute pancreatitis.

Patient 1: 35 year female patient, who underwent therapeutic ERCP for CBD stones. She met all three criteria of Atlanta classification for Acute pancreatitis³. She needed 3 days hospital stay and vigorous IV fluids and other supportive treatment.

Patient 2: 23 year male patient, who underwent therapeutic ERCP for

CBD stones. He too satisfied the Atlanta classification for acute pancreatitis³. He needed 5 days hospital stay and other standard treatment of Acute pancreatitis.

Patient 3: 45 year old female obese patient, BMI more than 30.5, subjected to therapeutic ERCP for multiple CBD stones. She needed a week stay in hospital for complete recovery from acute pancreatitis. None of the patients developed organ failure.

These are the three patients who developed PEP out of 280 patients subjected for therapeutic ERCP for obstructive jaundice for various etiologies. The incidence of PEP in our patients is 1.07 percent. The reasons for low incidence of PEP in our department are discussed under Discussion.

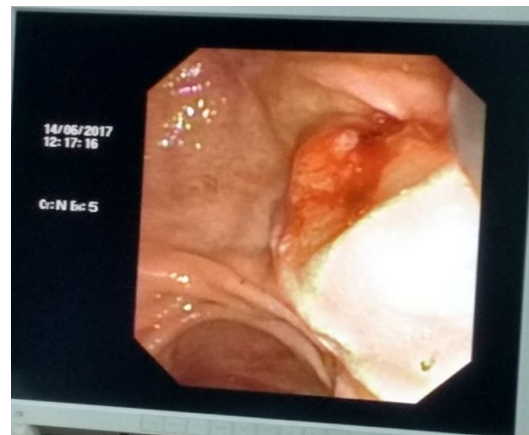


Figure 1 Ampullary Carcinoma



Figure 2 DPT stent in CBD and pigment stone at ampulla

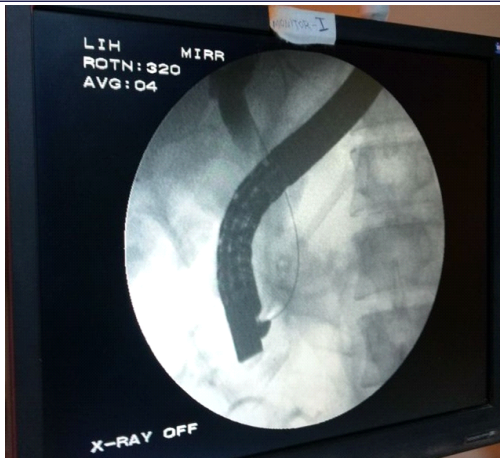


Figure 3 Cholangiogram

Discussion:

PEP is a dreaded complication and every effort must be made to prevent it. Prevention strategies can be broadly divided into 5 areas.

1. Appropriate patient selection
2. Risk stratification of patients undergoing ERCP
3. Atraumatic and efficient procedural technique

We strictly followed MRCP or CT scan as prerequisite for patient selection for therapeutic ERCP and adopted wire guided cannulation technique to gain access to CBD. In case of difficult cannulation we resorted to pre-cut sphincterotomy to gain access to CBD. WE avoided injecting contrast into the pancreatic duct.

Risk factors^{2,5} for PEP are divided into patient related and procedure related. Patient related factors are suspicion of sphincter of Oddi dysfunction, a history of prior PEP, normal bilirubin, young age and female sex. Procedure related risk factors are difficult cannulation, pancreatic duct wire passage, repeated pancreatography and short duration balloon dilation of an intact biliary sphincterotomy^{2,3}.

Summary and conclusion:

1. PEP is a preventable complication of ERCP
2. Selection of patient is crucial
3. Pre-cut sphincterotomy or double wire technique should be used in case of difficult cannulation of CBD
4. Balloon dilation of intact sphincter should be avoided
5. In case of more possibility of pancreatitis, place a stent in main pancreatic duct.

The incidence of PEP ranged from 1.9% to 11.7 %⁴ depending on the definition criteria adopted.

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