

A Case report: Acute Pancreatitis associated with Gallstone and Cholecystitis.

Dhrupal Patel,

Doctor of Pharmacy (PharmD)

Dhruviben Patel,

Doctor of Pharmacy (PharmD)

Dhruvi Parmar,

Doctor of Pharmacy (PharmD)

ABSTRACT: A 45 year old male with past medical history of gallstone and Cholecystitis order presented chief complaint of sever sharp epigastric abdominal pain radiating to the back associated with nausea, vomiting and black stool frequently. The patient denied any history of consuming alcohol or illegal drug abuse and smoking cigarette. He was severe distress due to pain with severe epigastric tenderness. Laboratory investigation showed the lipase and amylase is elevated indicated the pancreatitis .Abdominal ultrasonography showed acute edematous pancreatitis. CT scan findings are suggestive of acute necrotizing pancreatitis necrosis .mild fluid collection in gastro-hepatic region, mild pleural effusion, hepato splenomegaly. During the hospitalization patient taking various medications like intravenous fluids, analgesics, antiemetic, and pancreatic enzyme .on the next day, repeated measurements of him amylase and lipase were still abnormal. His symptoms continued to improve during his course of hospitalization. He was discharged home with complete resolution of his symptoms.

Key-Words: *Acute Pancreatitis, Gallstone, Cholecystitis, Amylase, Lipase*

INTRODUCTION:

Cholecystitis is an inflammation of the gallbladder that occurs most commonly because of an obstruction of the cystic duct from cholelithiasis (stones in the gallbladder).¹ These gallstones may migrate out into the common bile duct and cause obstruction of the pancreatic duct. The blockage of ductal flow increases pressure leading to interstitial fluid accumulation, which is enzyme rich and causes local destruction. Hence, an inflammatory process will result, and acute pancreatitis (AP) is formed.² Gallstones account for 40% of all cases of pancreatitis and 90% of all cases of non-alcoholic pancreatitis. Pancreatitis arises in 3-8% of all patients with symptomatic gallstone, and 30% of patients with stones <3mm in diameter.³ Pancreatitis is a pancreatic inflammation that including two types, acute and chronic.⁴ Acute pancreatitis (AP) included a wide ranges of disease, from its symptoms to a fulminant process with multiple organ damage and high mortality.⁵ The incidence of AP has increased over the past 20 years.⁶ Common symptoms of AP include nausea and vomiting and the abdominal pain that mostly spreads to the back. AP has different causes, some of which include: gallstones, alcohol consumption, hypercalcemia, hyperlipidemia, idiopathic, autoimmune and anatomic (pancreas divisum), infection, tumors and drug-induced. AP can be recurrent. Multiple and recurrent attacks of AP can lead to chronic pancreatitis, which can ultimately lead to pancreatic insufficiency. AP has various complications, one of the most severe complications is necrotizing pancreatitis, which is due to tissue ischemic and necrosis and has high mortality.⁴

CASE REPORT:

A 45 year old male with past medication history of Pancreatitis, Gallstone and Cholecystitis order presented chief complaint of sever sharp epigastric abdominal pain radiating to the back associated with nausea, vomiting and black stool frequently. The patient denied any history of consuming alcohol, or illegal drug abuse and smoking cigarette. No new medication had recently been started and there was no history of abdominal trauma. on physical examination, He was Afebrile, had a heart rate 78beats/min and blood pressure of 120/80 mm Hg and respiratory rate 18cycle/min. He was severe distress due to pain with severe epigastric tenderness. The remainder of him physical exam was normal. Laboratory investigations showed (Reference ranges of laboratory data are included in parentheses): Hb 10.4 g/dl (12-16), RB C 4.11 millions/cmm(3.5-5.5), PCV 30.4 % (37-64), MCV 74fl (80-100), MCH 25.3 pg (27-34), MCHC 32.3g/dl (32-36). RDW 13.1 % (11-16), WBC 17140/cmm(4000-11000), Neutrophils 77% , Lymphocytes 12 %, Eosinophils 1%, Monocytes 9%, Basophils 1% ,Platelets 319000/ μ l(140,000-400,000), NLR 6.41 (1..-3.5), PCT 2.89 ng/dl (0.22-0.24), MPV 9.0 fl (6.5-12), PDW 14.1 fl (9-14), Creatinine 1.2mg/dl (0.5-1.6), total bilirubin 2.2mg/dl(<1.2), Direct bilirubin 1.7 mg /dl (<0.25), Indirect bilirubin 0.5mg/dl(0.1-0.2), Serum Alkaline Phosphate (ALP) 89.4IU/L (64-300), Amylase 435.1 IU/L (20-110), Lipase 1012 IU/L (<200), GGT 38 IU/L (7-32), PT 16 sec (11-15), INR 1.23, (<2.0), CRP 88.90 . Abdominal ultrasonography showed acute edematous pancreatitis. CT Scan findings are suggestive of acute necrotizing pancreatitis necrosis involves head, body and tail region of pancreas collection in peri-pancreatic region, lesser sac and left anterior pararenal space. mild fluid collection in gastro-hepatic region, mild pleural effusion, hepato splenomegaly, liver enlarged size 19 cm and spleen enlarged 12 cm. He was treated with intravenous fluids, analgesics, antiemetic and Pancreatin enzyme. On the next morning,

repeated measurements of him amylase and lipase were still abnormal. His symptoms continued to improve during his course of hospitalization. He was discharged home with complete resolution of his symptoms.

DISCUSSION:

ABP is the inflammation of the pancreas primarily due to biliary sludge and gallstones. There are three main types of gallstones: Cholesterol, black pigment, and brown pigment stones. Cholesterol and black pigment stones are located in the gallbladder, and they are mainly attributed to physical or chemical aggravation to the gallbladder. Brown pigment stones, however are located in the bile ducts and are due to infectious agents.⁷The most common causes of AP are gallstones alcohol and hyperlipidemia respectively, however, nearly 20% of cases it is idiopathic.⁸The diagnosis of AP requires the patient to present with abdominal pain consistent with AP(acute onset of a severe constant epigastric pain which often radiates through to the mid back) and the elevation of serum amylase or lipase (>3times upper limit of normal).Imaging (usually by contrast enhanced CT scanning) is only required for the diagnosis of AP when these diagnostic criteria are not met.⁹severe acute pancreatitis is associated with fluid collections and tissue necrosis in and around the pancreas. In this case complication of acute pancreatitis was necrosis. Necrosis increases the morbidity and mortality risk of AP because of its association with organ failure and infectious complications. Nearly 20% of patients with AP develop necrotizing pancreatitis, of which approximately 25% to70% will develop to infected necrosis.¹⁰ Initial management of necrotizing pancreatitis is a supportive treatment that included: Fluid resuscitation, Pain control , resting the gastrointestinal tract.¹¹

CONCLUSION:

In conclusion, this is a case of an adult male who was diagnosed by AP, a condition by which mainly caused by presence of stone in the gallbladder. The symptoms and complications of this condition range from mild to severe. Understand relationship between, Gallstone, Cholecystitis and acute pancreatitis. The relationship between pancreatic enzyme and gallstone. Pancreatic enzyme elevation in acute Pancreatitis. Patient Knowledge about his medication and disease correctly. They should not self-medication or buy a OTC preparation without consultation of physician.

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