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Case Report

Embolisation of pancreatic pseudoaneurysm in pregnancy: a rare case report

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ABSTRACT

Pancreatic pseudoaneurysm is a rare and life threatening complication in pregnancy. It is a vascular complication of pancreatitis which may lead to erosion of pancreatic artery into a pseudocyst. Pseudocysts accounts for 5% in pancreatitis. Herewith we are presenting a case of pancreatic pseudoaneurysm in pregnancy which was successfully managed by placing endovascular placing of coil and obliteration of the same.

Keywords: Pancreatic pseudoaneurysm, Pancreatic pseudocyst, Angioembolisation

INTRODUCTION

Pancreatic pseudo aneurysm is a rare and life-threatening complication in pregnancy. Incidence of pancreatitis in pregnancy is 3 in 10000 pregnancies.[1] It is a vascular complication of pancreatitis which may lead to erosion of pancreatic artery into a pseudocyst which is an uncommon clinical entity.[2] It usually develops as a result of disruption of pancreatic duct with or without proximal obstruction.[3] It differs from true aneurysm where it is made up of fibrous tissue instead of arterial wall in true aneurysm. Pseudocysts accounts for 5% in pancreatitis.[4] It is a benign pancreatic disease and may be due to acute or chronic pancreatitis or trauma. A successfully treated pancreatic pseudoaneurysm in antenatal mother has been presented and relevant literature reviewed.

CASE REPORT

A 31 years old fourth gravida with 32 weeks of gestation presented with complaints of back pain, vomiting and abdominal pain with occasional bleeding per rectum for 1 month. She had no history of bleeding per vaginum. There is no history of trauma, alcohol abuse or gallstone disease. She used to take tapioca in her diet. On examination, she was found to be anemic with stable vitals. Abdominal examination revealed gravid uterus of 32 weeks size with good fetal heart rate. There is a minimal blood staining in per rectal examination.

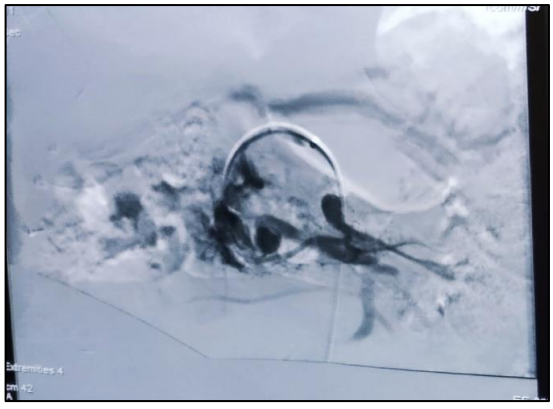

Figure 1: Angiography showing uptake of contrast by pseudoaneurysm of inferior pancreatic duodenal artery.

MRI abdomen showed chronic pancreatitis with dilated main pancreatic duct and ectasia, multilocular thin walled cystic lesion hanging from body of pancreas extending to left retrogastric space and left hypochondrium of size

20×15 mm and a pancreatic pseudo aneurysm of inferior pancreatico-duodenal artery of 16x14 mm size. Her hemoglobin was 6.8 g/dl, WBC-10,900, RBC – 4.2 million. Other blood parameters were within normal limits. We proceeded with angioembolisation of the pseudoaneurysm with a coil and it was successfully obliterated. Post procedure both mother and fetus continued to do well and discharged.

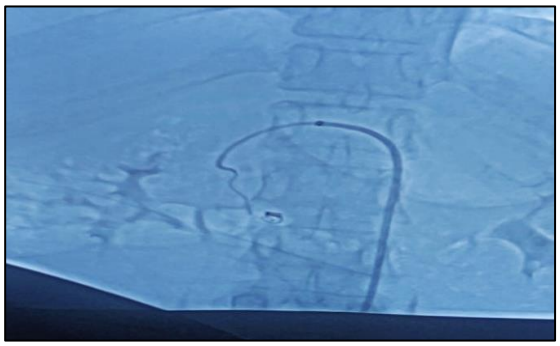

Figure 2: Successful coil embolization of pseudoaneurysm of inferior pancreatico duodenal artery.

DISCUSSION

Visceral artery aneurysms and pseudoaneuryms are a rare finding. Incidence of inferior pancreatico duodenal artery among visceral artery aneurysms constitutes 10%.[5]

Pseudoaneurysms are classified according to the artery they originate from, communication with the gastrointestinal tract, and exposure to pancreatic juice.[6] The most commonly involved artery is the splenic artery (30–50%) due to its proximity to the pancreas. After the splenic artery, the gastroduodenal artery is involved in 10% and the pancreaticoduodenal artery in 10%, followed by the superior mesenteric, left gastric, hepatic, and small intrapancreatic arteries.[2] The pathophysiology of these aneurysms is not clearly understood; weakening of the vessel by leakage of proteolytic enzymes has been implicated in the pathogenesis.[2] It is difficult to distinguish acute pancreatitis from pseudoaneurysm with abdominal pain and vomiting. CT abdomen and pelvis with contrast is often suggestive with sensitivity of 67% but CT angiogram is the gold standard with sensitivity of 100%.[2] But in pregnancy, it cannot be used. In our case MRI abdomen was taken due to pregnancy status. Pseudocyst is made of fibrous tissue and devoid of epithelium. Ultrasonography detects 85% of pseudocysts. Fluid is rich in amylase and other pancreatic enzymes.[4] Amylase -246 and lipase – 217 in our case along with history of tapioca usage and chronic pancreatitis. Clinical presentation varies from asymptomatic to abdomen pain, vomiting, backache, melena and others. Treatment modalities include coil embolisation and surgical intervention. In unstable patients, embolisation is the treatment of choice. Eventhough embolisation has higher success rate, there is still increased chance of recurrence. Surgical intervention needed when embolisation fails or rebleeding occurs. It involves either ligation of bleeding vessel or resection of pancreas along with pseudoaneurysm.[7] Once pseudo-aneurysm is diagnosed it should be treated immediately because of high mortality of 90% in untreated and 12.5% in treated patients.[2] Our case had been successfully treated with coil embolisation of Inferior pancreatico duodenal artery without any complications.

CONCLUSION

Pancreatic pseudoaneurysm and pseudocysts are uncommon clinical entities in pregnancy. There are considered as a differential diagnosis for pancreatitis. Early diagnosis and prompt treatment is mandatory because of potentially life threatening consequences. Intervention can sometimes leads to preterm labour. Our case had been successfully treated without any complications to both mother and the fetus.

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