Case report

Delayed pancreatic fistula-rare complication of left nephrectomy

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Abstract:

Pancreatic fistula is an important and possible complication of left nephrectomy performed for inflammatory or malignant lesions of kidney. This may develop due to intimate relationship of tail of pancreas to left kidney. The objective is to report this unusual case of delayed pancreatic cutaneous fistula which patient developed eight years after left nephrectomy. The patient was managed conservatively with subcutaneous injections of octreotide which led to closure of fistula and healing of excoriation.

Key Words: left nephrectomy; octreotide; pancreatic fistula

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Introduction: Close anatomical relationship of the pancreas to the left kidney may lead to pancreatic cutaneous fistula as a complication of left nephrectomy. The diagnosis was confirmed when amylase in the watery discharge was increased more than fivefold and skin excoriation healed after sub cutaneous injections of octreotide.

Case Summary: A 40 year old patient presented with discharging sinus in left lumbar region with skin excoriation. (Fig.1) He underwent left sided nephrectomy for non functioning left kidney more than 10 years back. Presence of skin excoriations with watery discharge which increased on taking food led to provisional diagnosis of pancreatic fistula. The same was confirmed by measuring the amylase level of discharging fistulous content which showed more than fivefold increase in amylase level. All other investigations including CT sinogram were non diagnostic. He was treated conservatively as an outpatient, as patient refused admission. He received subcutaneous injections of somatostatin analogue i.eoctreotide along with antibiotics and local application of zinc cream for wound care. Fistula healed spontaneously with medical treatment in two weeks. (Fig.2)

Discussion: Pancreatic cutaneous fistulas are rare, but a possible complication of a kidney surgery.[1] Varkarakis et al found 2.1% incidence of pancreatic injuries during laparoscopic urologic surgery.[2] The anatomical proximity of tail of pancreas to the left kidney plays a key role in this matter. The relevant factors are also the size of the kidney tumour and the coexisting inflammatory infiltration as well. The reason of fistula formation is the imperceptible intraoperative damage to pancreatic tissue and opening of pancreatic ducts.[3]The possible cause of fistula formation in our case was chronic inflammatory disease due to involvement of left kidney. The most important clue in diagnosis is the increase (at least threefold) of amylase level usually over2000 units in the liquid collected from the fistula.Thepost-operative pancreatic fistula(POPF) definition that was provided by the International Study Group of Pancreatic Fistula (ISGPF) in 2005 is today widely accepted. The ISGPF defines POPF as a healing or sealing failure of the pancreatico-enteric anastomosis or a parenchymal leak, which is characterized by an amylase concentrationgreater than three times the upper normal serum value in drain fluids on or after postoperative day three (Bassi et al., 2005a).In our patientamylase level of discharging fistulous content was more than fivefold than normal amylase level. Delayed pancreatic fistulas are very rare andone case of delayed pancreatic fistula one year after pancreaticoduodenectomy has been reported.[4]In 30-50% of cases conservative treatment is successful which includes discontinuing oral nutrition, antibiotic therapy based on microorganisms species diagnosedand administering somatostatin analogues, which decrease exoteric secretion of the pancreas.[4,5]Our patient also responded to conservative

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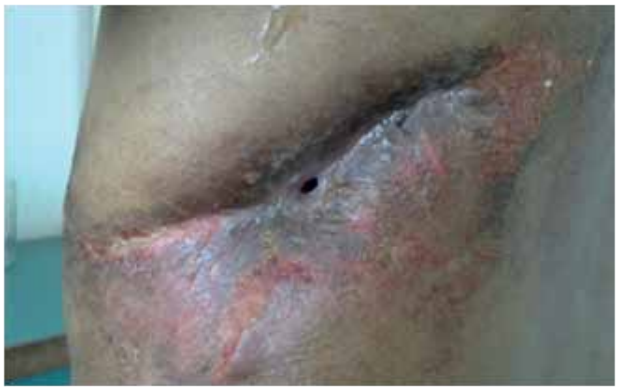

Fig-1: Showing skin excoriation due to pancreatic secretions

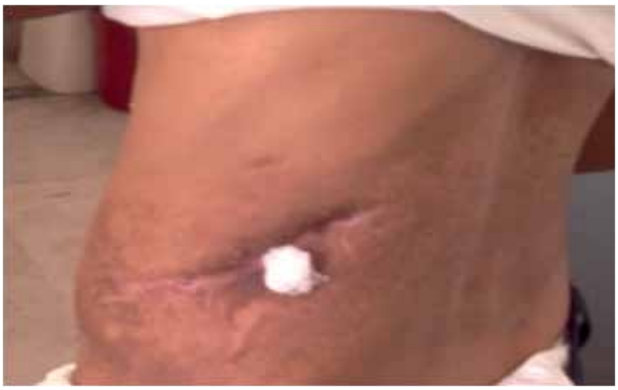

Fig-2 After treatment with octreotide

treatment with somatostatin analogue. Total parenteral nutrition (TPN) usually turns out tobe effective in the conservative therapy of pancreatic fistulas, though the same was not needed in our patient as well. More invasive methods of treatment are endoscopic ones -sphincterectomy, prosthetic restoration of Wirsung's duct or open surgery in the form of a fistulojejunostomy/ pancreatic resection if patient does not respond to conservative treatment and is only needed rarely.[5,6,7]

Conclusion: Pancreatic fistula is rare complication of left nephrectomy; Majority of cases can be managed with conservative treatment.The diagnosis and treatment of which should be known by the urologist and treating surgeons and physicians.

Conflict of interest: None

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