CASE REPORT

Inferior vena cava thrombosis: a rare complication of fibrocalcific pancreatic diabetes

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SUMMARY

A 42-year-old man presented with a history of recurrent loose motions for the previous 7 months. The patient also had a history of diabetes mellitus for the last 10 years and was uncontrolled on oral hypoglycaemic agents but responded to insulin. There was no history of any addiction. Examination and investigations showed the presence of malabsorption along with a calcified pancreas. The presence of a thrombus was also noted in the inferior vena cava. In the absence of alcohol intake, a diagnosis of fibrocalcific pancreatic diabetes was made and the patient was investigated for other hypercoagulable states but none was found. The patient was put on oral anticoagulants, insulin and pancreatic enzyme supplements, and currently, he is under regular follow-up for diabetes.

BACKGROUND

A splenic vein, portal vein and superior mesenteric vein thrombosis or a combination of these are known complications of acute as well as chronic pancreatitis. The involvement of other veins is relatively unknown. Venous thrombosis with fibrocalcific pancreatic diabetes (FCPD) has seldom been seen. We describe here a patient of FCPD who presented with pancreatic exocrine as well as endocrine insufficiency along with venous thrombosis in the hepatic part of the inferior vena cava.

CASE PRESENTATION

A 42-year-old man presented to our outpatient clinic with a history of loose motions for the past 7 months. He described his faecal matter as being oily, foul-smelling and difficult to wash from the toilet seat. He also had generalised weakness, body-ache and backache for the past 6 months. He noticed progressive weight loss (42 kg to 35 kg) and pedal oedema in the past 4 months. There was no history of abdominal pain, ascites and malena. The participant was known to have been diagnosed with diabetes over the past 10 years and his blood sugar levels were poorly controlled on oral hypoglycaemic drugs before he was switched over to subcutaneous insulin injections 2 months previously. He did not have any history of alcohol intake. On examination, the patient had pallor and pedal oedema. Thus, a diagnosis of FCPD with thrombosis of the intrahepatic part of the inferior vena cava was made.

INVESTIGATIONS

On investigation, his stool showed the presence of fat globules without any ova or cyst and his

Figure 1 CT scan of the abdomen showing inferior vena cava thrombosis.

haemoglobin was 10.5 and albumin 2.5 g/dl. A CT scan showed an atrophied pancreas with diffuse coarse calcification with thrombosis of the hepatic part of the inferior vena cava. The prothrombotic workup, including factor V Leiden, Janus kinase 2 (JAK 2) mutation, homocysteine, antiphospholipid antibody, protein C and S, and antithrombin III, was negative.

DIFFERENTIAL DIAGNOSIS

- Alcoholic pancreatitis
- FCPD

TREATMENT

The patient was managed conservatively with oral anticoagulants, pancreatic enzyme supplementation and subcutaneous insulin injections.

OUTCOME AND FOLLOW-UP

The patient was currently on insulin and pancreatic enzyme supplementation was under regular follow-up in the outpatient department.

Figure 2 CT scan of the abdomen showing pancreatic calcifications.

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DISCUSSION

Venous thrombosis is a known complication of acute and chronic pancreatitis.^{1–4} Thrombosis is more common in splanchnic circulation and is seen more commonly with alcoholic pancreatitis. Involvement of the splenic vein is most common in severe acute pancreatitis.⁵ FCPD is a type of diabetes secondary to tropical calcific pancreatitis. It is seen in tropical young males and is associated with complications of exocrine and endocrine pancreatic insufficiency.⁶ Contrary to earlier reports, it is now known that FCPD patients suffer from all the complications associated with diabetes. In addition, they are at risk of suffering from other problems because of the peculiar age, socioeconomic status and underlying chronic pancreatitis, which results in malnutrition, fatal septicaemia, carcinoma of the pancreas and rarely venous thrombosis.⁷

The cause of hypercoagulability in all forms of pancreatitis is yet to be found. Various mechanisms are postulated to the cause of these splanchnic and extrasplanchnic venous thromboses. The splanchnic veins, especially the superior mesenteric vein, portal vein and splenic vein, possibly get thrombosed owing to the release of proteolytic enzymes from the inflamed pancreas. As the splenic vein lies immediately adjacent to the pancreas, it is the most commonly affected vein. Thromboses of the distant veins are postulated to be due to inflammatory vasculitis and hypercoagulable states.⁸ In our patient, the absence of other causes of hypercoagulability and clinical and radiological proof of calcific pancreatitis associates venous thrombosis with pancreatitis.

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Competing interests None.

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Learning points

- ▶ Fibrocalcific pancreatic diabetes (FCPD) is an uncommon type of secondary diabetes mellitus, typically seen in young adults in the tropics.
- ▶ Apart from the complications of diabetes, it may have uncommon presentations like venous thrombosis, especially in the splanchnic circulation.
- ▶ Such presentations are more commonly seen in patients of alcoholic pancreatitis and have to be ruled out before the diagnosis of FCPD is made.

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