

Acute haemorrhagic pancreatitis in HIV positive patients

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Summary

We present two cases of severe acute haemorrhagic pancreatitis^{1,2}, in otherwise healthy adults who were HIV positive. Acute pancreatitis is not known to be common in the African communities but the incidence is on the increase¹. Both of them scored between 5 and 6 points on the Ransom scale³. One of them died despite similar aggressive resuscitation, adequate transfusion with fresh frozen plasma^{4,5} and peritoneal lavage^{6,7,8}

Though Steinberg and Tenner² had shown a higher incidence (4–22%) of acute pancreatitis among patients with the acquired immune deficiency syndrome (AIDS) in some populations, we are not aware of any observation in literature that same is true in otherwise healthy patients who are HIV positive. We are posting that what we have observed may indeed be human immune deficiency viral haemorrhagic pancreatitis. A prospective study of patients with acute pancreatitis will determine the position.

Keywords: *Acute, Haemorrhagic pancreatitis, HIV positive.*

Résumé

Nous présentons deux cas d'une pancréatite hémorragique aigue sévère, chez deux adultes autrement en bonne santé, qui étaient HIV positif. La pancréatite aigue n'est pas connue comme une maladie courante dans les communautés africaines mais l'incidence est en augmentation, tous les deux ont marqué 5 et 6 points sur la balance de Ransom. L'un d'eux est mort malgré une resuscitation agressive similaire, une transfusion adéquate avec du plasma frais congelé et un lavage péritoneal.

Quoique Steinberg et Tenner avaient montré une incidence élevée (4–22%) d'une pancréatite élevée parmi les patients ayant le syndrome immunodéficient acquis (SIDA) dans certaines populations, nous ne sommes pas au courant d'une observation écrite disant que la même chose soit vraie chez des patients autrement en bonne santé qui sont HIV positifs. Nous disons que ce que nous avons observé en effet peut être une pancréatite hémorragique virale humaine immunodéficiente. Une étude prospective des patients avec une pancréatite déterminera la position.

Case 1

A 45 years old healthy looking man, a civil servant, was admitted from work with severe epigastric pain, nausea, vomiting and prostration. He had mild post-prandial epigastric pain the week before but his upper gastrointestinal endoscopy did not reveal any anomaly. He had never used alcohol and had never had cause to determine his HIV status. He had obtained an appointment for an abdominal scan before his presentation. He was in shock with distended, rigid and guarded abdomen. He was promptly resuscitated and his renal function was adequate before surgery.

The diagnosis was made at laparotomy where the peritoneum was studded with whitish granules and a massive haematoma engulfed the pancreas and the wound oozed freely. The liver was normal and there was no stone in the gall-bladder or the common bile duct. The patient was thoroughly lavaged and catheters appropriately placed for continuous peritoneal lavage with saline.

On closing the wound ecchymosis was noted on the right flank and around the umbilicus in this very fair skinned African patient – the Grey – Turner's and Cullen's signs respectively. He was transfused daily with fresh frozen plasma.

His HIV screen on double ELISA was positive (the result was received postoperatively) and this was confirmed on the Western blot. His serum amylase level was 1375 Somogyi units. He was not diabetic and had no other systemic disease. He scored 5 points on the Ransom scale but his white cell count dropped by 21.7% on the 3rd post-operatively day when compared with the count on admission. He expired on the third post-operative day as a result of irreversible renal failure.

Case 2

A 27 years old spinster, a native of the Jos Plateau, was admitted with twelve hours history of severe epigastric pain, which soon became generalised with vomiting prostration and haemoperitoneum. She never tasted alcohol. She had generally been in good health and was not on any medication.

She was adequately resuscitated and diagnosis was made at laparotomy – the omentum was covered with chalk-like granules, the oedematous pancreas oozed freely

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and there was a massive retroperitoneal haematoma. The liver was grossly normal and no stone was found in the biliary tree. The peritoneum was copiously lavaged with saline and catheters placed for continuous peritoneal lavage. Her serum amylase level was 1200 Somogyi units. She was not diabetic and had no other systemic disease. She scored 6 points on the Ranson's scale. She tested HIV positive both on double ELISA and the Western blot – both results were received on the third post-operative day. Her white cell counts dropped by 17.3% on the 3rd post-operative day. She was discharged on the 13th post-operative day and had been followed up for 10 weeks without complications.

Discussion

Viral haemorrhagic pancreatitis is a known entity often running a fulminant course.^{1,2} High index of suspicion coupled with ultrasonography or CT scan is the key to early diagnosis as delay in diagnosis may be fatal.^{1,2} The condition is not so common in our environment when compared with what obtains in industrialised societies and this may explain why diagnosis was only made at laparotomy in both cases. However, there is still a place for operative management in acute pancreatitis⁹ especially when the diagnosis is in doubt and it is not otherwise possible to exclude other causes of acute abdomen amenable to surgery. However, in patients known to be HIV positive and indeed in AIDS patients, non-operative peritoneal lavage¹⁰ is ideal in order to reduce the risk of HIV transmission.

We noted a significant absence of post operative leucocytosis and indeed recorded a rapid drop in their white cell counts as against the count on admission. This is corroborated by the work of Sander R. Binderow and Abraham A. Shaked¹¹ who noted a similar lack of leucocytosis postoperatively in HIV positive and AIDS patients after appendicectomy. This observation in their series, was not associated with significant increase in morbidity and mortality.

The aim of transfusing these patients with fresh frozen plasma is mainly because of its natural proteinase inhibitory capacity amongst its other beneficial effects of improving the clotting profile of the patient and in sustaining adequate oncotic pressure. Cuschieri *et al*⁴ in a series of 239 patients with acute pancreatitis treated with fresh plasma reported a very low mortality and no complication attributable to the use of fresh frozen plasma was encountered in their study. The proteinase inhibitory capacity of the serum of patients with acute pancreatitis has been shown to be markedly reduced as a result of their recorded low levels of trypsin-binding α_2 -macroglobulin⁵.

These patients scored 5 and 6 points respectively on the Ranson's scale³ – a range known to carry 50% mortality, thus indicating the severity of their condition. One of them died of irreversible renal failure.

In view of their HIV seropositivity in otherwise good health, and normal liver and biliary tree and the absence of alcohol ingestion, we proffer the view that their acute haemorrhagic pancreatitis could be another manifestation of the HIV infection. This could be so especially when it is known that epigastric pain – often with negative upper gastrointestinal endoscopic findings – is a common symptom in AIDS patients. Moreso, Steinberg and Tenner² had shown that there was a high incidence of acute pancreatitis in AIDS patients in some communities they studied. It may well be the same retrovirus that is the aetiological agent in these two patients with severe acute haemorrhagic pancreatitis in this study.

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