CASE REPORT

Thoracic and abdominal pain in a 28-year-old woman with a failing kidney transplant

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ABSTRACT

This case report describes a young, immunocompromised patient who presented with thoracic pain. After an extensive workup, she was diagnosed with a varicella zoster virus infection with involvement of the gastric mucosa, pancreas and lungs for which she was treated with acyclovir. Although the viral load decreased significantly, the patient had persistent postherpetic neuralgia and nausea.

BACKGROUND

Varicella zoster virus (VZV) is common during childhood, and the vast majority of the adult population has IgG antibodies against VZV. After infection, the virus lies dormant in the ganglia and impaired immune function can cause a reactivation. Usually, this presents with a typical skin lesion known as herpes zoster. However, in some cases, this diagnostic lesion can appear late or be completely absent. In addition to skin, reactivation of VZV can occur throughout the body, which is known as disseminated VZV infection. This is potentially lethal and requires swift diagnosis and treatment. However, presenting symptoms may be aspecific or mimic other conditions, such as in the case presented here. Therefore, VZV reactivation should be considered in an immunocompromised patient presenting with unexplained abdominal pain.

CASE PRESENTATION

A 28-year-old woman with a history of hypertension-related kidney disease and a failing kidney transplant due to rejection for which she was recently treated with high-dose prednisolone and alemtuzumab presented with increasing right-sided thoracic pain and abdominal discomfort. At admission, her immunosuppressive

medication consisted of tacrolimus, prednisolone and mycophenolatmofetil.

INVESTIGATIONS

Physical examination revealed no abnormalities. Laboratory results showed a normal white cell count, low serum C reactive protein, normal levels of liver enzymes and electrolytes, an elevated serum creatinine of 335 $\mu\text{mol/L}$ consistent with known chronic kidney transplant failure and a mildly elevated lipase of 360 U/L (<3 upper limit of normal).

DIFFERENTIAL DIAGNOSIS

Initial diagnostic workup excluded a pulmonary embolism, pneumonia, cardiac ischaemia, urinary tract infection, cholelithiasis and cholecystitis.

In the days following admission, the patient developed intense epigastric pain and serum lipase increased to >3 x upper limit of the reference range (3002 U/L). Oesophagogastroduodenoscopy showed mild antrum gastritis and multiple small white lesions (figure 1). A CT scan of the abdomen showed multiple pancreatic cysts (figure 2) and nodular densities with ground glass consolidations in the included basal lung fields (figure 3).

TREATMENT

The patient was treated with intravenous acyclovir.

OUTCOME AND FOLLOW-UP

Although the viral load of VZV decreased significantly, the patient had persistent postherpetic neuralgia and nausea.

DISCUSSION

Patients treated with drugs that suppress cellular immunity are at increased risk of reactivation of latent viral infections

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Figure 1 Oesophagogastrroduodenoscopy showing mild antrum gastritis and multiple small white lesions.

such as VZV. In particular, alemtuzumab, a CD52-binding monoclonal antibody that can lower B and T cell activities for months, carries a high risk of VZV reactivation. Serum PCR showed a high VZV viral load and revealed the presence of VZV in the gastric biopsies and a throat swab. This diagnosis was further confirmed when the patient developed a herpes zoster lesion on the right side of her thorax on the 8th day after admission. The patient was treated with intravenous acyclovir. Although the viral load of VZV decreased significantly, the patient had persistent postherpetic neuralgia and nausea. VZV infection is

Figure 2 CT scan of the abdomen showing multiple pancreatic cysts.

Figure 3 CT scan of the lower lung fields showing nodular densities with ground glass consolidations.

associated with a wide variety of symptoms and some patients initially present with only prodromal pain or do not develop dermal lesions at all (zoster sine herpette).¹ The vast majority of the adult population has IgG antibodies against VZV.² Therefore, intestinal VZV reactivation should be considered in an immunocompromised patient presenting with unexplained abdominal pain.

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