An unusual complication of bortezomib therapy: Acute pancreatitis

Sir,

Bortezomib is recommended as a primary induction therapy for patients with multiple myeloma who are not candidates for bone marrow transplantation. There are few case reports of bortezomib-induced acute pancreatitis (AP).[1-3]

A 58-year-old female presented with fever and vomiting of 2-month duration with rapidly progressive renal failure. In view of nephrotic range proteinuria and normal kidney size, kidney biopsy was done, which revealed cast nephropathy. She was found to have multiple myeloma and was started on bortezomib and dexamethasone. Each cycle consist of 4 doses on 0, 4, 11, 14th day. During the 1st and 2nd cycle, she was asymptomatic and responded well to treatment.

During the 3rd cycle, after 1st dose of bortezomib, she developed abdominal pain localized in the epigastrium and mild distension of abdomen. There was mild epigastric tenderness and decreased bowel sounds. There was no rigidity or guarding. A laboratory work-up did not demonstrate hypertriglyceridemia or hypercalcemia. The serum lipase and amylase were high (233 IU/L and 126 IU/L respectively). Ultrasound abdomen revealed heterogeneous and bulky distal body and tail of pancreas, there were no peripancreatic fluid collections, no biliary dilatation or gallstones. A diagnosis of AP was made. An endoscopic ultrasound did not reveal any evidence of microlithiasis, pancreas divisum or any change suggestive of underlying chronic pancreatitis. Her lipase level 2 days after the 1st dose decreased to 193 IU/L. On day 4, 2nd dose of bortezomib given, but her epigastric pain increased and serum lipase increased to 361 IU/L, which started resolving after few days and the patient became asymptomatic. In view of resolving pancreatitis, 3rd dose of bortezomib was given on day 11. After the 3rd dose, her symptoms again aggravated and lipase increased to 353 IU/L as shown in Figure 1. Concomitant medications including dexamethasone had not been stopped. In view of suspicion of bortezomib induced pancreatitis, 4th dose of 3rd cycle was withheld. Her symptoms subsided and she discharged with advice to follow-up after 7 days. According to the Naranjo probability scale, bortezomib-induced AP was probable.[4]

A retrospective study conducted in Germany concluded that the incidence of drug-induced AP is 1.4%.[5] Other

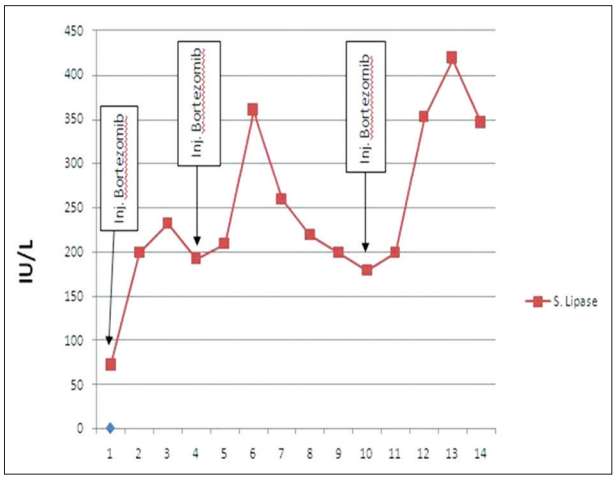

Figure 1: Line diagram showing relationship between dose of Inj. bortezomib with serum lipase levels during 3rd cycle of chemotherapy. Inj. bortezomib was given on day 1, 4 and 11

mechanisms for drug-induced AP have been associated with adverse effects of drugs, such as hypertriglyceridemia or chronic hypercalcemia, which are risk factors for AP. In our case, the diagnosis was based on the exclusion of other causes and the resolution of clinical and biological signs when the bortezomib was withdrawn and evidence of a positive rechallenge. In conclusion, clinicians should be aware that AP may occur in patients taking bortezomib.

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week. Examination showed mild pallor, tachycardia

the "crescent in doughnut" sign (white arrow)