

CASE REPORT

Pancreatic Plasmacytoma Presenting as Variceal Hemorrhage: Life Threatening Complication of a Rare Entity

Muslim Atiq¹, Syed Abbas Ali², Shyam Dang¹, Somashekhar G Krishna¹,
Elias Anaisse², Kevin W Olden¹, Farshad Aduli¹

¹Division of Gastroenterology and Hepatology, ²Myeloma Institute of Research and Therapy; University of Arkansas for Medical Sciences. Little Rock, AR, USA

ABSTRACT

Context Pancreatic plasmacytoma is a rare entity and presents with features of mass lesion of pancreas. **Case report** We present an interesting case of pancreatic plasmacytoma with life threatening gastrointestinal bleeding secondary to isolated gastric varices. **Conclusion** This case highlights the importance of considering it in differential diagnosis of patients with anemia, recurrent pancreatitis or jaundice and isolated gastric varices, prompting a CT scan to evaluate for any pancreatic mass lesions.

INTRODUCTION

Extramedullary plasmacytomas are neoplastic plasma cell proliferation outside the bone marrow [1, 2]. Pancreatic plasmacytomas are rare, with only a few case reports in the literature [3, 4, 5]. We describe a case of pancreatic plasmacytoma presenting as gastric variceal hemorrhage secondary to splenic vein thrombosis. The purpose of this report is to highlight this rare manifestation of multiple myeloma especially with regards to gastrointestinal manifestations of the disease.

CASE REPORT

A 49-year-old Caucasian female with history of diabetes type II, hypertension and congestive heart failure underwent work up for recurrent episodes of acute pancreatitis and was found to have a pancreatic mass. The first episode of acute pancreatitis was at an outside facility around 3 months prior to presentation at our institution. Imaging results at our institution revealed a pancreatic mass. Fine needle aspiration of the lesion was consistent with monoclonal plasma cell dyscrasia. Bone marrow biopsy confirmed the diagnosis of multiple myeloma. She smoked one pack of cigarettes per day; however she denied any alcohol use. Chemotherapy was being contemplated when she

started to have acute onset of hematemesis with drop in hemoglobin requiring transfusion of packed red blood cells.

After hemodynamic resuscitation an esophagogastroduodenoscopy was performed. It showed normal esophagus, without esophageal varices. The gastroesophageal junction appeared normal. Retroflexion in the stomach showed presence of prominent gastric varices with active bleeding. Endoscopic sclerotherapy with sodium morrhuate was performed with control of bleeding. Repeat CT scan of abdomen revealed a 3.9 cm mass in the body of the pancreas (Figure 1). The tumor resulted in the invasion and occlusion of the splenic artery and vein. Multiple collateral vessels were visible near the splenic hilum and along the lesser and greater curvatures of the stomach.



Figure 1. A 3.9x3.4 cm mass is noted associated with the posterior aspect of the body of the pancreas, with the loss of fat plane between pancreas and retroperitoneum.

Received September 27th, 2008 - Accepted December 4th, 2008

Key words Esophageal and Gastric Varices; Gastrointestinal Hemorrhage; Pancreatitis; Plasmacytoma

Correspondence Farshad Aduli

Division of Gastroenterology, University of Arkansas for Medical Sciences, Little Rock, AR, USA

Phone: +1-501.686.5175; Fax: +1-501.686.6248

E-mail: faduli@uams.edu

Document URL <http://www.joplink.net/prev/200903/07.html>

Patient responded well to the endoscopic sclerotherapy. No further intervention was needed. Based on the tumor invasion of the splenic vein and artery, decision was made to start patient on chemotherapy. Over the following three months, she underwent myelosuppressive chemotherapy followed by stem cell collection. Later, she underwent myeloablative chemotherapy followed by autologous hematopoietic peripheral stem cell transplantation. It resulted in prompt decrease in size of tumor to 1.8x1.2 cm. Patient has remained free of any recurrent variceal hemorrhage. Repeat endoscopic assessment indicated complete resolution of gastric varices.

DISCUSSION

Plasmacytoma is plasma cell tumor involving organs outside the bone marrow, and it may be primary or secondary [6]. Solitary plasmacytoma is defined as a neoplastic proliferation of plasma cells which originate in almost any tissue throughout the body, without any sign of systemic spread [7, 8]. Approximately 10% of extra medullary plasmacytomas occur in the gastrointestinal tract, the stomach being the most frequent site [7, 8].

On sonography, pancreatic infiltration by myeloma has been described as a heterogeneous focal mass most often located in the head of the pancreas that is hypoechoic relative to the normal parenchyma and shows fine internal echoes [9].

The CT features of this condition have been described as a lobulated mass with homogeneous i.v. contrast enhancement [9]. Diffuse enlargement of the pancreatic gland has been cited in only a few cases [10].

To our knowledge, this is the first case of pancreatic plasmacytoma with tumoral infiltration of splenic vasculature resulting in gastric varices and hemorrhage. This diagnosis should be considered in patient with multiple myeloma and gastrointestinal bleeding. Treatment should focus on hemodynamic resuscitation,

endoscopic control of bleeding if needed and chemotherapy to allow tumoral mass reduction.

Conflict of interest The authors have no potential conflicts of interest

References

1. Ali R, Ozkalemkas F, Ozcelik T, Ozkan A, Ozkocaman V, Ozturk H, et al. Extramedullary plasmacytoma involving the abdominal vessels and pancreas. *Dig Dis Sci* 2007; 52:3199-201. [PMID 17909974]
2. Hameed A, Ryan M, Kamel D, Vusirikala M. Plasmacytoma of the pancreas and pelvis: a case report. *Lab Hematol* 2008; 14:10-1. [PMID 18403315]
3. Deguchi Y, Nonaka A, Takeuchi E, Funaki N, Kono Y, Mizuta K. Primary pancreatic plasmacytoma. *Am J Clin Oncol* 2004; 27:247-9. [PMID 15170142]
4. Richards WG, Katzmann FS, Coleman FC. Extramedullary plasmacytoma arising in the head of the pancreas; report of a case. *Cancer* 1958; 11:649-52. [PMID 13523576]
5. Dimopoulos MA, Kiamouris C, Mouloupoulos LA. Solitary plasmacytoma of bone and extramedullary plasmacytoma. *Hematol Oncol Clin North Am* 1999; 13:1249-57. [PMID 10626148]
6. Hirata S, Yamaguchi K, Bandai S, Izumo A, Chijiwa K, Tanaka M. Secondary extramedullary plasmacytoma involving the pancreas. *J Hepatobiliary Pancreat Surg* 2002; 9:111-5. [PMID 12021905]
7. Yoshida T, Soda K, Yamada S, Nakahara M, Nishida J, Kametaka M, Konishi F. Biclinal extramedullary plasmacytoma arising in the peritoneal cavity: report of a case. *Surg Today* 2004; 34:379-82. [PMID 15052459]
8. Nolan KD, Mone MC, Nelson EW. Plasma cell neoplasms. Review of disease progression and report of a new variant. *Surg Oncol* 2005; 14:85-90. [PMID 15993050]
9. Mitchell DG, Hill MC. Obstructive jaundice due to multiple myeloma of the pancreatic head: CT evaluation. *J Comput Assist Tomogr* 1985; 9:1118-9. [PMID 3902920]
10. Wilson TE, Korobkin M, Francis IR. Pancreatic plasmacytoma: CT findings. *AJR Am J Roentgenol* 1989; 152:1227-8. [PMID 2718859]