

Survival of Serious and Lethal Complication of Gastrointestinal Hemorrhage: Case Report

Ali Dawood Al-Hilfi¹, Kadhim S Al Ashoor² and Falih Algazgooz³

¹Laparo-Endoscopic & Bariatric Surgeon, Al-Sadr Teaching Hospital, Basra, Iraq

²Cardio-Thoracic & Vascular Surgeon, Al-Sadr Teaching Hospital, Basra, Iraq

³Consultant General, Laparo-Endoscopic & Bariatric Surgeon, Al-Sadr Teaching Hospital, Basra, Iraq

*Corresponding author

Ali Dawood Al-Hilfi, Laparo-Endoscopic & Bariatric Surgeon, Al-Sadr Teaching Hospital, Basra, Iraq, E-mail: alihilfi2003@yahoo.com

Submitted: 06 June 2018; Accepted: 11 June 2018; Published: 25 June 2018

Abstract

Background

Primary aortoduodenal fistula (PADF) is a rare, serious complication of abdominal aortic aneurysm (AAA). Frequently the diagnosis is missed due to the rarity of disease.

Case description

A 76 year old, Male referred to GIT center in our hospital suffering from severe upper gastrointestinal bleeding and melena. All investigation appears normal apart from elevated blood urea with 3 sessions of upper GIT endoscopy by expert GI Physician with no evidence of cause for the bleeding (he put in her mind Dieulaphoy lesion).

Introduction

Primary aortoduodenal fistula (PADF) is a rare, serious complication of abdominal aortic aneurysm (AAA). It is an abnormal connection between the suprarenal aorta and duodenum, in contrast to secondary aortoduodenal fistula, which usually results from a previously implanted endovascular stent-graft procedure [1]. PADF cause an estimated 3% of massive gastrointestinal (GI) hemorrhages and comprise 6% of all deaths [2]. The diagnosis of a primary ADF can be more difficult due to its infrequency as well as its occasionally insidious presentation.

Since their first discovery 100 years ago, more than 200 PADFs have been reported [3]. The presented case report describes a PADF between the suprarenal AAA and duodenojejunal flexure (infected aneurysm), which was successfully managed at Al Sadr Teaching Hospital in Basrah, Iraq and raise the fallibility of diagnostic investigations, and the importance of having a clinical suspicion.

Case Report

A 76-year-old Male referred to GIT center at 3:00 pm at al Sadr teaching hospital suffering from severe upper gastrointestinal bleeding and melena. Patient gave history of mild hypertension with no previous surgical intervention. After 3 days of unresponsiveness to medical therapy in the form of (Nexium infusion), the patient subjected to 3 sessions of upper gastrointestinal endoscopy with no definitive source of bleeding and receive 13 pints of blood. Laboratory investigations were normal apart from high blood urea of 76 mg/dl and creatinine level of 1.5 mg/dl. Patient admitted to intensive care unit where he received 2 pints of blood, continued

on Nexium infusion (esomeprazole) infusion, and sent for CT-angiography. The patient condition deteriorated and became hypotensive with blood pressure of 70/40 mmHg with continuous bleeding; an emergency laparotomy become mandatory.

CT-angiography revealed saccular aneurysm seen projecting anteriorly from abdominal aorta, 4.5 cm inferior to the Superior mesenteric artery origin with formation of 3 cm hematoma that invade the duodeno-jejunal flexure (Figure 1). Emergency laparotomy was done for the patient with exploration at 10:30 pm. Teamwork with cardiovascular surgeon assistance attempt to correct patient condition (Figure 2).

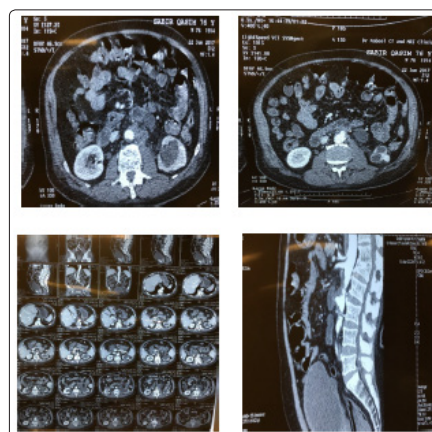


Figure 1

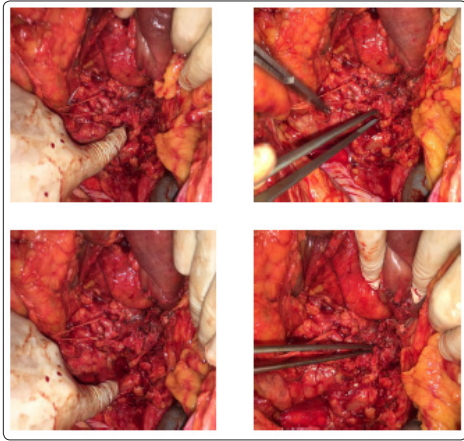


Figure 2

Discussion

The term PADF were first recognized 100 years ago by Cooper and first case report presented by Salman [4, 5]. The incidence of primary type of Fistula is very low ranging from 0.04% - 0.07% [6]. Two third of cases affect duodenojejunal junctions and one-third affect the 4th part. Due to close proximity of the duodenum and expanding pattern of AAA, any irritation and inflammation subsequently result in fistula over time.

The mechanism of development of PADF attributed to wear, inflammatory destruction and precipitated by infection, foreign body or erosion [7]. The classical manifestations of PADFs are upper GI bleeding (64%), abdominal pain (32%), and a pulsatile abdominal mass (25%) [8]. The most valuable diagnostic tool for the diagnosis of PADF is helical CT scan with intravenous contrast [9]. With rarity of the condition, suspicion of this condition almost missed. The mortality from untreated PADF is almost 100%. The survival after surgery ranges from 18% to 93% [10].

Conclusion

PADF is an extremely uncommon cause of massive upper GI bleeding and abdominal mass. Most of the time, such a condition is being overlook and patient passed and etiology discovered on autopsy.

Therefore, the recommendation is to perform a CT-angiography, which considered the gold standard for diagnosis, especially when other investigations failed to demonstrate the cause of the bleeding and prompt surgical intervention offers the only treatment for survival in the era of no interventional radiology team.

References

1. Biancari F, Romsı P, Perälä J, Koivukangas V, Cresti R, et al. (2006) Staged endovascular stent-grafting and surgical treatment of a secondary aortoduodenal fistula. *Eur J Vasc Endovasc Surg* 31: 42-43.
2. Kane JM, Meyer KA, Kozoll DD (1955) an anatomical approach to the problem of massive gastrointestinal hemorrhage. *AMA Arch Surg* 70: 570-582.
3. Shehzad KL, Riaz A, Meyrick-Thomas J (2010) Primary aortoduodenal fistula – a rare clinical entity. *J R Soc Med Sh Rep* 1: 7
4. Cooper A (1939) Lectures on principles and practice of surgery

with additional notes and cases by F Tyrrell. Philadelphia, PA: Haswell, Barrington, and Haswell.

5. Salman M (1843) Aneurysme de l'aorte ventrale mort gur rupture de la poche attriele dars leduodenum. *Bull Soc Anat* 18: 283.
6. Voorhoeve R, Moll FL, de Letter JA, Bast TJ, Wester JP, et al. (1996) Primary aortoenteric fistula: report of eight new cases and review of the literature. *Ann Vasc Surg* 10: 40-48.
7. Lozano FS, Muñoz-Bellvis L, San Norberto E, Garcia-Plaza A, Gonzalez-Porras JR (2008) Primary aortoduodenal fistula: new case reports and a review of the literature. *J Gastrointest Surg* 12: 1561-1565.
8. Sweeney MS, Gadacz TR (1984) Primary aortoduodenal fistula: manifestation, diagnosis, and treatment. *Surgery* 96: 492-497.
9. Hill SL, Kaot LH, Alexander RH (1982) recurrent aortoduodenal fistula: a lesion in management. *Ann Surg* 48: 137-140.
10. Kavanagh DO, Dowdall JF, Younis F, Sheehan S, Mehigan D, et al. (2006) Aorto-enteric fistula: changing management strategies. *Ir j Med Sc* 175: 40-44.

Copyright: ©2018 Ali Dawood Al-Hilfi. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.