

## Idiopathic Spontaneous Intraperitoneal Hemorrhage: A Case Report

Maryam Nobakht Rad<sup>1\*</sup>, Omid Abdollahi<sup>2</sup>, Hannaneh Golshahi<sup>3</sup> and Ramin Mazaheri Nezhad Fard<sup>4</sup>

<sup>1</sup>Division of General Surgery, Department of Surgery, Firoozgar Hospital, Tehran, Iran

<sup>2</sup>Department of Internal Medicine, Faculty of Medicine, Semnan University of Medical Sciences, Semnan, Iran

<sup>3</sup>Department of Pathology, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran

<sup>4</sup>Rastegar Reference Laboratory, University of Tehran, Tehran, Iran

### Abstract

Idiopathic Spontaneous Intraperitoneal Hemorrhage (ISIH) is a rare and often life threatening condition, traditionally referred as abdominal apoplexy. A 32-year-old man with diffuse abdominal pain, nausea, vomiting, weakness and loss of appetite was referred to the hospital. This man had the history of alcohol consumption. The patient was kept Nil per Os (NPO) and received serum therapy. Six hours after the admission, his abdominal pain gradually increased and he developed hypotension, tachycardia and dizziness. Abdominal ultrasonography was immediately performed which showed intraperitoneal fluid. No evidence of spleen, liver or other internal organ abnormality was seen. The presence of blood was confirmed in abdominal cavity using ultrasound guided puncture. The patient was immediately transferred to operating room. Exploratory laparotomy was carried out and hemoperitoneum was confirmed. Examination of the spleen, liver, bowel, kidneys and mesentery revealed no source of bleeding or existence of subcapsular hematoma. The patient made a fast recovery in the intensive care unit and was discharged in a stable condition after seven days. He was closely followed up for six months without any recurrence or complications related to ISH. This case is the first report of ISIH in a patient in Iran.

**Keywords:** Spontaneous intraperitoneal hemorrhage; Idiopathic; ISIH; Iran

### Introduction

Spontaneous hemoperitoneum is described as the presence of blood in the peritoneal cavity that is not associated with traumas. The phenomenon can be idiopathic or related to spontaneous rupture of either known or unknown pathology [1]. The cause of non-traumatic spontaneous hemoperitoneum can be classified as vascular, hematological, hepatic, splenic, gynecological, and inflammatory or coagulation disorder or cryptogenic disease [2]. Idiopathic Spontaneous Intraperitoneal Hemorrhage (ISIH) is a rare and often life threatening condition, also traditionally known as abdominal apoplexy [3]. The majority of cases are diagnosed postoperatively. Even after a comprehensive abdominal exploration, the origin of hemorrhage often remains unclear [2,4]. However ISIH is not common and occurs rarely, it represents a real emergency condition and must be considered in any patient with atypical abdominal pain and hemodynamic instability [5,6]. Nonspecific symptoms usually include abdominal pain, abdominal distension, nausea, vomiting and hemodynamic instability [6]. To the authors' best knowledge, this case is the first report of ISIH in Iran.

### Case Presentation

A 32-year-old man was referred to the hospital with diffuse abdominal pain, nausea, vomiting, weakness and loss of appetite after consumption of alcohol. On admission, the patient was alert. Physical examination showed pale mucus membranes and a light conjunctiva while the skin was relatively cool. The patient's temperature was 37.2°C with a blood pressure of 110/70 mmHg, a pulse of 85 beats per minute and respirations of 16 per minute. He had a history of usual smoking and alcohol consumption. On examination, the patient's abdomen was soft and mild distended, with normal bowel sounds. Some mild tenderness was diffusely present on deep palpation but without any guarding or rebound tenderness. Rectal examination was normal. The blood results showed a white cell count of 8,100/ $\mu$ l, hematocrit of 40.6%, serum hemoglobin concentration of 13.7g/dl and normal platelet of 339,000/ $\mu$ l. The values of coagulation tests were normal. The blood biochemistry did not reveal any abnormality. Plain abdominal radiography only showed a nonspecific bowel gas pattern. Furthermore, abdominal

ultrasound scan provided negative results for disorders such as renal calculi, hydronephrosis, appendicitis and gallstones. The patient was kept Nil per Os (NPO) and received serum therapy. After two hours, the patient felt mild abdominal pain. However, his abdominal pain gradually increased four hours later while he developed hypotension, tachycardia and dizziness. Again abdominal ultrasonography was immediately performed and showed intraperitoneal fluid. There was no evidence of spleen, liver or other internal organs abnormality. The presence of blood was confirmed in abdominal cavity using ultrasound guided puncture. Therefore, the patient was immediately transferred to operating room. The patient does not have the history of consumption of anti coagulant drugs. Exploratory laparotomy was carried out and hemoperitoneum was confirmed. Approximately 1500 ml of free blood was removed by peritoneal lavage and several blood clots were observed. Examination of the spleen, liver, bowel, kidneys and mesentery revealed no source of bleeding or existence of subcapsular hematoma. The abdomen was closed with a low suction drain, which drained nearly 200 ml of serosanguinous fluid over the next two days. Three units of Fresh Frozen Plasma (FFP) were transfused immediately post operation. The patient made a fast recovery in the intensive care unit and was discharged from the hospital in a stable condition after seven days. He was carefully followed up for six months without any recurrence or complication related to ISH.

### Discussion

Spontaneous hemoperitoneum is an unusual medical condition with a variety of causative agents. It may be secondary to gynecological

**\*Corresponding author:** Dr. Maryam Nobakht Rad, Division of General Surgery, Department of Surgery, Firoozgar Hospital, Tehran, Iran, Tel: +98-9354040844; E-mail: [dr.nobakhttrad@gmail.com](mailto:dr.nobakhttrad@gmail.com)

Received May 29, 2013; Accepted June 14, 2013; Published June 17, 2013

**Citation:** Rad MN, Abdollahi O, Golshahi H, Fard RMN (2013) Idiopathic Spontaneous Intraperitoneal Hemorrhage: A Case Report. J Clin Case Rep 3: 289. doi:10.4172/2165-7920.1000289

**Copyright:** © 2013 Rad MN, et al. 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.

disorders (ectopic pregnancy, ruptured ovarian cysts, ruptured gravid uterus ovarian tumors), liver disorders (rupture of hepatic tumors), splenic disorders (infections, hamartoma, congenital cysts), solid organ malignancy (hepatic or renal), vascular disorders (aneurysm, polyarteritis nodosa, ruptured varices, hepatic cirrhosis with portal hypertension), hematological disorders (hemophilia, myeloproliferative conditions), inflammatory disorders (hemorrhagic pancreatitis, tuberculous pancreatitis, pseudocysts) and coagulation disorders or may be idiopathic [2,6-8]. Idiopathic Spontaneous Intraperitoneal (intra-abdominal) Hemorrhage (ISIH) is also a rare medical condition associated with high mortalities. This term is synonymous to a more recent term "abdominal apoplexy" which has historically been used to define cases of intra-abdominal bleeding that have not been well documented etiologically [3]. There is a male predominance within the affected people and the majority of cases present in the fifth or sixth decade of the patients' life [6].

Approximately in an average of 30% of reported cases, the source of bleeding was not identified and CT scan, angiography and surgery could not reveal any reasons [2,9]. In the present case, despite the history of alcoholism, the source of bleeding remained unclear at exploratory laparotomy. Since some patients have significant hemoperitoneum without any obvious preceding symptoms [10,11], it is sometimes difficult to diagnose ISIH before doing any abdominal exploration. Some reports have suggested the advantages of various imaging methods for early recognition of this condition [11]. In literature review, most patients with spontaneous hemoperitoneum frequently presented acute abdominal pain and might present a wide variety of other clinical presentations [10,11] as seen in the present case. Furthermore, physicians must consider hemoperitoneum in their primary diagnosis in patients who have a previous injury, history of anticoagulant use or current abdominal tumor when they exhibit clinical presentation of hypovolemia or decreased blood hematocrit [11]. Szturz et al. [12] reported a case of a patient, who had been repeatedly surgically revised because of liver rupture and hemoperitoneum. Initially, the computed tomography finding was interpreted as liver hemangioma. However, based on liver biopsy, the diagnosis had to be changed to primary systemic amyloidosis. Due to a considerably advanced disease, the patient was eligible only for palliative chemotherapy with cyclophosphamide and dexamethasone, which could not deflect the course of rapidly progressing liver destruction. The current case had a history of occasional consumption of alcohol. Dedouit et al. [2] reported an unexpected death secondary to intra-abdominal bleeding in a chronic alcoholic person. In autopsy, massive hemoperitoneum was diagnosed with no visible internal traumatic injuries. Moreover, hepatic and pancreatic abnormalities secondary to chronic alcoholism were revealed by pathological studies. However, the source of hemoperitoneum was not identified. The authors concluded that death was secondary to idiopathic spontaneous hemoperitoneum and possibly was associated with liver cirrhosis.

In 1987, DiMaio [13] reported three deaths due to massive intra-abdominal hemorrhage in alcoholic individuals with liver cirrhosis. However, the source of bleeding was not hidden. In one case, signs of Disseminated Intravascular Coagulopathy (DIC) were found and the author suggested that the condition was possibly linked to liver cirrhosis. Coagulation abnormalities such as increased risk of bleeding

episodes due to inadequate hepatic synthesis of coagulation factors usually exist in chronic alcohol abusers [2]. In the current report, however the disorder is called idiopathic and spontaneous; it is unlikely that such a hemorrhage occurs without any underlying vascular lesions which can exist only at molecular levels [6].

## References

1. Liu YH, Ma HX, Ji B, Cao DB (2012) Spontaneous hemoperitoneum from hepatic metastatic trophoblastic tumor. *World J Gastroenterol* 18: 4237-4240.
2. Dedouit F, Piercecchi-Marti MD, Leonetti G, Rouge D, Telmon N (2012) Unexpected natural death secondary to intra-abdominal bleeding: Report of one idiopathic spontaneous intraperitoneal hemorrhage case. *Forensic Sci Int* 214: e43-e46.
3. Skouras Ch, Lalountas MA, Triantafyllou A, Angelidou S, Ballas KD (2011) Idiopathic spontaneous haemoperitoneum due to a ruptured middle colic artery aneurysm. *Int J Surg Case Rep* 2: 163-165.
4. Koifman A, Weintraub AY, Segal D (2007) Idiopathic spontaneous hemoperitoneum during pregnancy. *Arch Gynecol Obstet* 276: 269-270.
5. Cawyer JC, Stone CK (2011) Abdominal apoplexy: a case report and review. *J Emerg Med* 40: e49-e52.
6. Harbour LN, Koch MS, Louis TH, Fulmer JM, Guileyardo JM (2012) Abdominal apoplexy: two unusual cases of hemoperitoneum. *Proc (Bayl Univ Med Cent)* 25: 16-19.
7. Sun HP (2006) Preoperative diagnosis and successful surgical treatment of abdominal apoplexy—a case report. *Tzu Chi Med J* 18: 452-455.
8. Hung SW, Ma HP, Lin AC, Wang TL, Chong CF, et al. (2006) A potentially fatal mystery in acute abdomen: abdominal apoplexy. *Am J Emerg Med* 24: 740-741.
9. Esmer-Sanchez D, Alvarez-Tostado-Fernandez F, Carmona-Sanchez R, Alfaro-Sousa A (2009) Idiopathic spontaneous hemoperitoneum. *Rev Gastroenterol Mex* 74: 242-245.
10. Ksontini R, Roulet D, Cosendey BA, Cavin R (2001) Spontaneous intraperitoneal hemorrhage: etiology. *Rev Med Suisse Romande* 121: 713-716.
11. Angthong C, Wathanaapisith T, Chavasiri Ch (2011) Fatally idiopathic spontaneous hemoperitoneum in a patient with cervical spine injury: A case report and review of the literature. *J Med Assoc Thai* 94: 882-887.
12. Szturz P, Kyclová J, Moulis M, Navrátil M, Adam Z, et al. (2013) Extensive Al amyloidosis presenting with recurrent liver hemorrhage and hemoperitoneum: case report and literature review. *Klin Onkol* 26: 49-52.
13. DiMaio VJ (1987) Sudden, unexpected death due to massive, nontraumatic intra-abdominal hemorrhage in association with cirrhosis of the liver. *Am J Forensic Med Pathol* 8: 266-268.