Gastro-splenic fistula as a complication of chemotherapy for large B cell lymphoma


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AIM: Gastro-splenic fistula is a rare entity in which malignant tumors are the primary cause, followed by perforated peptic ulcers and Crohn's disease.

CASE REPORT: A 66 years old patient undergoing chemotherapy for gastric large cells B lymphoma presented fever, fatigue and worsening of general conditions. A CT scan showed the presence of an abdominal abscess resulting from a pathological communication between stomach and spleen.

RESULTS: En – bloc splenectomy and gastric wedge resection was performed; gastric wall was sutured with a linear stapler. Postoperative stay was uneventful; alimentation was restarted 5 days after the surgical procedure, and the patient was discharged 2 days later.

CONCLUSION: We have described an unusual case of gastric fistula complicating chemotherapy early diagnosed and successfully treated.

KEY WORDS: Chemotherapy, Gastro-splenic fistula, Lymphoma, Surgery

Introduction

Gastro-splenic fistula is a rare entity in which malignant tumours are the primary cause, followed by perforated peptic ulcers and Crohn’s disease; a pathological communication between spleen and gastric lumen can be a complication of gastric and splenic lymphomas, which can occur spontaneously or secondary to chemotherapy.

We report a case of a patient that developed a gastro-splenic fistula after chemotherapy for gastric B – cell lymphoma.

Case Report

On April 2015 a 66 – years old female patient was admitted to our Hospital with complaints of weakness, fatigue and weight loss. Laboratory tests ad admission showed: anaemia (haemoglobin 9.6 g/dl – normal range 12.0 – 15.5 g/dl); leucocytosis (white blood cell count 13800/μl – normal range 4000 – 10000/μl); neutrophilia (neutrophils 13800/μl – normal range 1400 – 7700/μl).
Chest x-rays and total body contrast – enhanced total body CT scan detected a left pleural effusion and an abdominal mass (7.5 X 3 cm in diameter), involving the splenic hilum, the posterior wall of gastric body and the tail of the pancreas; the spleen resulted pathologically enlarged, with a diameter of 10cm; imaging also showed lymphadenopathy at celiac trunk and mesenteric vessels. The patient underwent oesophagogastroduodenoscopy, that showed an ulcerative lesion located on the left cranial portion of the posterior wall of the stomach; a biopsy was performed, and the diagnosis of diffuse large B-cell lymphoma (Bcl2+, Bcl6-, CD5-, CD10-, CD20+, MUM1+).

Bone marrow biopsy did not show pathological findings; no cancer cells were detected in pleural fluid evacuated by left thoracentesis.

A 4–cycles CHOP + Rituximab chemotherapy was started. 15 days after the last administration of chemotherapy the patient developed fever, fatigue and worsening of general conditions; a wide spectrum antibiotic therapy was started, without improvement of clinical status; no abdominal pain nor symptoms suggestive for gastrointestinal bleeding were present.

A CT scan showed the presence of an abdominal abscess resulting from a pathological communication between stomach and spleen (Fig. 1).

Results

Left subcostal laparotomy was performed; the abdominal supramesocolic abscess was drained and a fistula between spleen and gastric fundus was detected; “en – bloc” splenectomy and gastric wedge resection was performed; gastric wall was sutured with a linear stapler. Histological examination showed extensive necrosis of spleen parenchyma and red pulp hyperplasia (Figs. 2, 3). Postoperative stay was uneventful; alimentation was restarted 5 days after the surgical procedure, and the patient was discharged 2 days later.

Discussion

Gastric fistulas not related to peptic disease or primary adenocarcinoma of the stomach are occasionally described; literature reports cases of pyo – pneumopericardium due to gastro – pericardial fistula as a fatal complication of an incarcerated diaphragmatic hernia (Suciu et Al, Ann Ital Chir 2016)⁴; gastro – pericardic fistula could also result as a complication of surgical procedures such as oesophagogastroplasty ⁵. Gastro-splenic fistula resulting from a gastric or splenic lesion is a rare entity ⁶.

Gastric adenocarcinoma, Crohn’s disease, benign gastric ulcer are known causes ⁶.
About gastro-splenic fistula formation in splenic lymphoma, extensive central necrosis and gastric wall invasion are required 7; for this reason, Literature described cases of fistula after chemotherapy 8; however, gastro-splenic fistula can spontaneously occur, independently from chemotherapy, especially in diffuse large cell B lymphoma, because of its characteristics large, destructive masses with extensive central necrosis and easy capsular penetration 9.

The classical clinical presentation consists of left upper quadrant abdominal pain, fever and septic complications usually occurring during chemotherapy, but also massive gastrointestinal bleeding due to splenic erosion can occur 10. Abdominal CT is considered superior to other radiological tests in the diagnosis of gastro – splenic fistula; air – fluid levels or the presence of the air in the spleen are suggestive for the presence of this clinical entity; the fistulous tract visualisation can be obtained also by orally administrated contrast medium; endoscopy is not considered mandatory but can be used, as in our case, to obtain the histological diagnosis 11. Even if Literature reports very few cases of self resolving gastro-splenic fistulae during chemotherapy, early surgical approach with splenectomy and gastric partial resection is mandatory in order to avoid septic complication or bleeding 12.

Conclusions

We have described an unusual case of gastric fistula complicating chemotherapy for a haematological disease, in which early diagnosis was achieved and surgical treatment prevented more serious complications.

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References


Commento e Commentary

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Il caso presentato merita di essere conosciuto anche se si tratta di una eventualità non sconosciuta dell’evoluzione della localizzazione endoaddominale dei linfomi.

A titolo di esempio nel 1983 è stato osservato personalmente un caso – non pubblicato – che presenta notevoli analogie con quanto descritto dagli Autori, rappresentato da un quadro clinico esordito con un’ulcera gastrica della piccola curva sintomatica, accompagnata da subittero e ascite. L’esame TC dimostrava chiaramente un’aderenza dell’area sede dell’ulcera con il lobo sinistro del fegato, alterata da un’immagine di fissurazione, ma nessun segno di cirrosi. La stessa ulcera non mostrava gli aspetti tipici del cancro gastrico ulcerato e nemmeno quelli di un’ulcera peptica. Nel campo addominale la TC dimostrava la presenza di una linfadenopatia multipla. L’esame istologico dei prelievi biotici eseguiti a livello dei margini dell’ulcera non chiarivano la diagnosi, ma quelli eseguiti al suo fondo portavano alla diagnosi chiarificatrice di linfoma.

Il trattamento chirurgico fu semplicemente palliativo con l’esecuzione di una resezione gastrica con resezione a cuneo del parenchima epatico interessato ed una sommaria bonifica linfonodale. Il caso venne affidato gli oncologi, ma in breve tempo il paziente, uomo di 72 anni, giunse all’exitus.

La analogia con il caso presentato dagli Autori si limita alla più verosimile patogenesi della lesione ulcerativa, che è da considerarsi del tutto secondaria all’infiltrazione linfoblastica di vicinanza con il linfoma. A differenza del caso presentato dagli Autori, nel caso qui ricordato non era proponibile né necessaria una resezione epatica estesa in analogia alla splenectomia del caso presentato, sia per l’esiguità dell’interessamento del parenchima, ma soprattutto per la diffusione multifocale del linfoma a sede linfonodale, ormai in fase avanzata, testimoniata dall’esistenza della cospicua ascite recidivante. Per l’infiltrazione splenica gli Autori non potevano agire diversamente.

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The presented observation deserves to be known even if it is a not unknown evolution possibility of intra-abdominal localization of lymphomas.

A title od example in 1983 I personally observed a case - not published – with many similarities with that described by the authors. The clinical onset was of a symptomatic gastric ulcer of the small curve, together with subittero and ascites. The CT can clearly showed adherence of the side of the ulcer with the left lobe of the liver, where there was a fissure n image, but no sign of cirrhosis. The same ulcer did not show the typical features of gastric ulcerated cancer neither that of an ulcerative peptic ulcer. The CT showed the presence of a multiple lymphadenopathy diffuse in abdomen. The histological examination of biotice samples taken at the level of the ulcer margins did not indicate the diagnosis, but those performed at the bottom of the ulcer gave the clarifier diagnosis of lymphoma.

Surgical treatment was merely palliative with the execution of a gastric resection with wedge resection of the liver parenchyma affected and a summary multiple lymphadenectomy.

The case was committed to oncologists, but in few weeks the patient, 72-year-old man, came to death.

The analogie with the case presented by the authors is limited to the most likely pathogenesis of the ulcerative lesion, which is to be considered entirely secondary to infiltration of proximity with lymphoblastic lymphoma. Unlike the case presented by the authors, in the case mentioned here it was not feasible nor necessary an extended hepatic resection in analogy to splenectomy of the case presented, both for the smallness of the interest of the parenchyma, but especially for the multifocal abdominal spread of lymphoma in so many lymph nodes, by that time well under way, as witnessed by the existence of substantial recurrent ascites. Given the splenic infiltration splenic the authors could not act otherwise than with the splenectomy.