Syndrome of superior mesenteric artery as a cause of upper intestinal obstruction in palliative care
DISCLOSURE OF INTEREST

- None
F, 65 y.o.

Histologically proven ductal adenocarcinoma of the pancreatic corpus and tail cT3N1 pM1 (per, hep, ovary)

ECOG 0-1. No significant comorbidities

BMI 19.8 kg/m^2, total score NRS 2002 = 4
Brief history

- **07.2017.** Tumor in the pancreatic corpus and tail 3.5x7.3 cm, metastasis in liver and suspect of metastases to the ovary. No metastases in lungs.
- **CEA 71.9 ng/ml, CA 19-9 5556 U/ml**
- **04.08.2017.** Diagnostic laparoscopy with bilateral adnexectomy, biopsy of the peritoneum
- **Morphological and immunohistochemical study:** immunophenotype of low grade pancreatic ductal adenocarcinoma in ovary and peritoneum
- 4 cycles of systemic chemotherapy FOLFIRINOX (September 2017 – November 2017) without significant toxicities
- Follow-up after the 3rd cycle of chemotherapy: no signs of progression
- Beginning of the 5th cycle in December 2017 was delayed due to the symptoms of upper intestinal obstruction: nausea, vomiting, malnutrition (progressive weight loss ~12 kg in 2 weeks), hypovolemia, electrolyte abnormalities and leukopenia (WBC 2,3 cells/mcL)
- **Upper GI endoscopy**: complete obstruction of the 3rd part of the duodenum (extraduodenal compression and tumor invasion)

- **CT**: syndrome of superior mesenteric artery (SMA), complete duodenal obstruction, grossly distended stomach

- The aortomesenteric angle $\sim 19^\circ$ (normal range $38-56^\circ$)

- The aortomesenteric distance 6 mm (normal range 10-20 mm)
Treatment

- nasogastric tube placement for duodenal and gastric decompression
- total parenteral nutrition for 5 days, infusion therapy, correction of electrolyte abnormalities
- G-CSF (Filgrastim) 3x → WBC 7,8 cells/mcL
- Gastrojejunostomy

- Complication-free postoperative period
- Liquid nutrition on POD 1, solid food from POD 2
- Continuation of chemotherapy 2 weeks after surgery
Discussion

- Superior mesenteric artery (SMA) syndrome is an uncommon cause of intestinal obstruction with a reported incidence of 0.1–0.3%
- SMA syndrome should be kept in mind as a differential diagnosis for intestinal obstruction
- Oncology and recent significant weight loss were the predisposing factors for SMA syndrome
- Proper care is a key component of good outcome
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