Case no. 1 (July 2003)

Female – b. 1932

Medical History: cholecystectomy for lithiasis
Hemorrhoidectomy
Hemithyroidectomy for benign nodular disease

Disease onset: 1997
Severe hematemesis and melena with acute anemia. Emergency admission to the nearest hospital and successful treatment of hemorrhaging. Transfer to our Division for continued treatment, diagnostic confirmation and further treatment if necessary.

Physical examination
Apart from the moderate anemic appearance, no other pathological signs seen. Scars present on the abdomen from previous videolaparoscopic surgery and at the base of the neck from thyroidectomy.

Laboratory examinations
Laboratory tests revealed moderate-degree sideropenic hypochromic anemia. No other noteworthy signs.

Esophagogastroduodenoscopy: esophagus normal – in the stomach on the prepyloric lesser curve a large (diameter 3 – 4 cm.), jutting, soft, not eroded formation; the antral mucosa presents hyperemia radiating towards the pylorus consistent with "watermelon stomach"; multiple biopsies; duodenum normal. Conclusion: jutting prepyloric subepithelial antral formation with radiating hyperemia ("watermelon syndrome").

Radiological examination confirm the prepyloric "minus".

Histological examination of biopsy specimens showed: abnormally thickened gastric mucosa resulting from extreme lengthening of gastric foveolae, which appear tortuous. Glands are mucinous and at times present ectasic lumen. Marked edema in the mucosa and submucosa. No signs of malignancy. Overall histomorphological picture compatible with hypertrophic polypose gastritis.

Diagnosis: prepyloric productive hemorrhagic lesion (angiodysplasia?) on gastric antral vascular ectasia (GAVE) a.k.a. "watermelon stomach".

Surgery is decided, given the neoplastic features of the lesion and the serious hemorrhagic symptoms:
xifo-umbilical medial laparotomy. No adhesions from videolaparoscopic cholecystectomy observed. Palpable mass of about 3 cm in diameter posterior to the prepyloric gastric antrum on the lesser curve (as seen on physical exam). Exploration of the whole abdomen, particularly the gastroenteric tract and colon was negative. The last ileal ansa, the caecum and right colon all appear normal. Transversal gastrotomy on the anterior wall: a longitudinal gastric fold is seen, with surface that is irregular and reddened compared to surrounding mucosa, bleeding and of the afore-mentioned size. Removal of the lesion; cryostat examination reveals no signs of malignancy. Double-layer suture (vycril-prolene) of the mucosa and the wall. Toilet of the peritoneal cavity. Suture of the abdominal wall.

Anatomohistopathological findings. macroscopic description: soft, reddish sessile polypoid neoformation measuring 3x2x0.4 cm. After fixing in 10% formaline for 24 hours the lesion was

separated into 6 specimens for embedding in paraffin. Mounted histological specimens colored with E&E. Microscopic findings: microscope exam of the mounted specimens reveals abnormally thickened gastric mucosa resulting from extreme lengthening of gastric foveolae, which appear tortuous. Glands are mucinous and at times present ectasic lumen. Marked edema in the mucosa and submucosa. Visible in the lamina propria, above all at the peak of the fovealar crests, are thin-walled ectasic vessels containing blood, some of which show characteristic lumen thrombosed by eosinophilic-fibronous material. Focal lymphoid aggregates also present. The muscularis mucosae is thickened and fragmented.

Histopathological Diagnosis: gastric antral vascular ectasia (GAVE).

Follow-up

Post-operative period is normal. The patient undergoes periodic check-up. Episodic events of moderate anemia with positive occult blood in stools are effectively resolved by simple anti-anemic treatment. Endoscopy confirms the presence of GAVE: periodic laser treatments achieve unstable results. In November 2002 labeled red cell scintigraphy seemingly indicates both gastric and right iliac hemorrhaging. A series of examinations (colonoscopy, esophagogastroduodenoscopy, spiral CT scan of the small intestine and colon) fail to detect any signs of disease. In March 2003 video capsule exploration shows: gastro-duodenal hemorrhagic features; pseudo-polypoid folds and minimal angioectasia of the proximal small intestine; areas of erosion and non-bleeding de-epithelization in the distal small intestine.
The patient's objective and subjective conditions in the years following surgery were acceptable; cyclical treatments with PPI were started and, when necessary, were complemented by anti-anemic therapy.
5-asa was added following latest findings obtained with the video-capsule.
No further hemorrhagic episodes have occurred.

Conclusions

The case presents a number of peculiar findings that can be discussed:

- A picture of "watermelon stomach", in itself a relatively rare disorder;
- Overlapping of bleeding polypoid-like lesions with angiodysplastic features;
- Association of signs of pseudo-polyposis, angioectasia and de-epithelization, with erosion of the small intestine;
- Surgery and treatment with PPI and 5-asa seem to have achieved positive results.