

# DIFFICULT DIAGNOSIS IN A CASE OF TRANSVERSE COLON NEOPLASM INVADING THE GREATER GASTRIC CURVATURE

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**Abstract:** Colon cancer is considered to be the third most common neoplasm in men, while in women it is considered the second most common cancer, according to the World Health Organization, the Globocan database. Colon adenocarcinoma represents over 90% of malignant tumours of the colon. It is a malignant epithelial tumour originating in the epithelium of the colonic mucosa, which gradually invades all the layers of the colonic wall (the muscle of the mucosa, submucosa, own muscle, being able to surpass the serosa). We presented the case of an 80-year-old female patient with multiple comorbidities, admitted to a medical department, then transferred to the surgery department, whose definitive diagnosis was hardly made intraoperatively, despite multiple preoperative investigations performed in the two wards. The postoperative evolution was favourable. The case and the elements from the specialty literature are discussed, but also the particularities of the treatment of colonic cancer in the elderly and the possible complications arising postoperatively.

## INTRODUCTION

Colon cancer is considered to be the third most common neoplasm in men, while in women it is considered the second most common cancer, according to the World Health Organization through the Globocan database. Globally, the incidence of colon cancer varies depending on dietary habits, exposure to environmental pollution, but also on the genetic risks or possible precancerous conditions in the personal medical history.<sup>(1,2)</sup>

The increased risk factors for colon cancer are: countries with low socio-economic development, sedentary, obese persons, unhealthy eating, smoking etc.<sup>(3,4)</sup>

Age is not a specific risk factor in colon cancer. It is rarely until the age of 40. Afterwards, the incidence begins to increase significantly until the age of 50, subsequently increasing with each decade.

The survival of patients with colon cancer at 5 years from diagnosis is constantly increasing due to the early detection of the disease, but also due to the much more efficient treatment, both surgical and adjuvant. Thus, in the US, the 5-year survival rate in colon cancer, regardless of stage, reached 61%.<sup>(5,6)</sup>

As a result of the increase in life expectancy, the age at which this condition appears has also increased. Most of the time, however, due to the existence of the associated age-related comorbidities, the treatment of elderly patients with colon cancer should be less aggressive but observing the oncologic principles as much as possible.

## CASE PRESENTATION

We present the case of an 80-year-old female patient with multiple comorbidities: grade II hypertension, type 2 diabetes mellitus, stage II chronic kidney disease, gastric ulcer, cholecystectomy, ischemic heart disease, *exercise-induced angina*, aortic stenosis, cervical-dorsal-lumbar spondylosis,

osteoporosis, who presented in the Emergency Room with stabbing pain in the chest in the left part, asthenia, fatigue, vertigo, expiratory dyspnea, symptomatology that started approximately one week ago.

Objective examination: altered general condition, underweight, afebrile, pale teguments and mucous membranes, saburral tongue, pain in the cervical-dorsal-lumbar spine, kyphoscoliosis and pain in the left hemithorax, expiratory dyspnea; decreased vesicular breath sounds, crepitant crackles, blood pressure (BP) = 140/80mmHg, atrio-ventricular (AV)=60bpm; supple, mobile, sensitive to palpation abdomen in the epigastrium, intestinal transit present, unpalpable liver and spleen, free renal lodges, no Giordano sign, spontaneous urination. The patient was time and space-oriented.

At the palpation of the abdomen, in the left flank and iliac fossa, a thickening was felt, without sensitivity spontaneously and on palpation.

Biochemically, severe normocytic hypochromic anemia (Hb- 7.3 g/dl) was noticed, as well as thrombocytosis (543,000 ul), inflammatory biological syndrome, hydro-electrolytic disorders.

The patient was admitted to the Medical ward where the correction of anemia started by administering erythrocyte and iron concentrate, diuretics, antibiotics, hydro-electrolytic re-balancing therapy, antiemetic, hepatic and gastric protection therapy, chronic cardiac therapy, under which the symptoms were slightly improved.

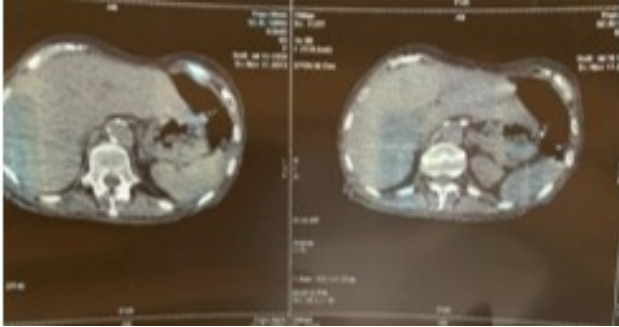
Due to the persistence of the symptoms, a pelvic abdominal CT was decided and performed that showed an elongated stomach with 4/8cm parafluid mass that entered into close contact with the gastric wall on the large curvature, accumulation also described in the line joining the iliac crests, reason for which a surgical consultation, was requested after which, on 18.11.2019 the referral to the Surgery ward was

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decided in order to establish the specialized surgical treatment.

**Figure no. 1. Abdominal and pelvic CT**



On the I Surgery ward, laboratory tests were performed that highlighted: Iron 210ug/dL; Leukocytes 10,850; Hemoglobin 10.6 g/dL; Thrombocytosis 568,000u/l.

Eco-endoscopy described: upper abdominal formation near the large gastric curvature with posterior wall of hypoeogenic consistency - suspicion of intraparietal gastric tumour.

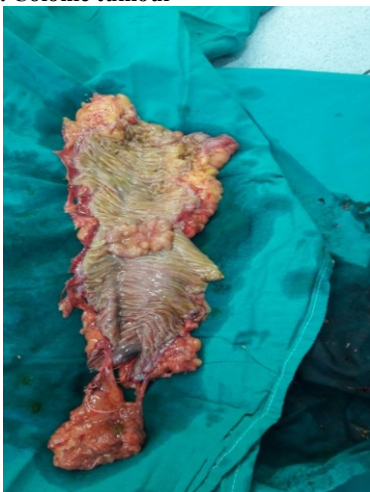
The ultrasound showed a tumour formation located in the left flank and iliac fossa in close contact with the large gastric curvature.

After an adequate preoperative preparation, surgical intervention was performed in general anesthesia and endotracheal intubation, performing an exploratory laparotomy that showed a large tumour formation at the level of the transverse colon that invaded the large gastric curvature, multiple coloepiploic adhesions, for which segmental transverse colon resection was performed with IC resection of the stomach on the large curvature with a linear stapler (figures no. 2 and 3), with ascending-descending T-T anastomosis and closure of the mesenteric gap. Viscerolysis, washing, double drainage, parietorraphy in anatomical layers, sterile dressing were practiced.

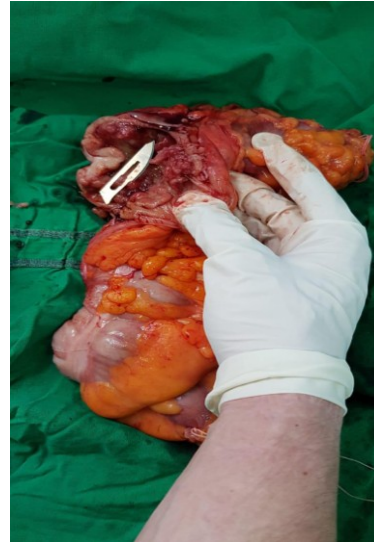
Slow favourable postoperative evolution, patient with good general condition, stable in terms of cardio-respiratory status and hemodynamically, afebrile, supple, mobile abdomen, painless spontaneously and on palpation, post-operative healed wound, without reaction, permeable drainage tubes with minimal drainage, reason for which on the 6<sup>th</sup> postoperative day they were suppressed, intestinal transit resumed for fecal matter and gas.

The patient was discharged on the 8<sup>th</sup> day postoperatively.

**Figure no. 2. Colonic tumour**



**Figure no. 3. Gastric invasion**



## DISCUSSIONS

Colon cancer can be localized at different levels of the colon: caecum, ascending, transverse, descending, or sigmoid. It is an increasingly common neoplasm, both in men and women. Although the frequency of the disease is increasing, survival rate is improving, on the one hand due to the development of screening programmes that have led to the discovery of the disease in increasingly incipient stages with the possibility of establishing curative treatment, and on the other hand the development of complementary therapeutic methods: chemotherapy, radiotherapy, immunotherapy.

Unfortunately, in our country, both due to the lack of screening programmes for this pathology, as well as due to the patients' presentation to the doctor in advanced stages, the treatment is often curative, and the life expectancy is much lower.

Most frequently, colon cancer develops by malignant degeneration of adenomatous polyps. It is the stage in which the treatment of colon cancer can be curative. Unfortunately, even in the countries that have very well developed colon cancer screening programmes, the presentation to the doctor in the metastatic stage is up to 20%.<sup>(7)</sup>

From the clinical point of view we have a differentiation of symptoms, thus in the right colon cancer the large tumour formations predominate, with secondary anemia, without intestinal occlusion, whereas in the left colon cancer the tumours are small, scirrroid, the patient presenting most commonly in the emergency department with intestinal occlusion or subocclusion.

Unfortunately, in the case of tumours of the transverse colon the symptomatology is quite poor, the patient presenting to the doctor quite frequently in the metastatic stage, complaining about the increase in size of the abdomen based on the tumour size or the presence of ascites, feeling of early satiety, cutaneous metastases or signs of malignant impregnation.

Colon cancer can be spread in 4 directions: lymphatic metastasis in locoregional lymph nodes, hematogenous dissemination in liver and lungs, bones, intraperitoneal dissemination and dissemination by loco-regional invasion.<sup>(7)</sup> In our case, metastasizing was extremely rapid through loco-regional invasion at stomach level, and the symptomatology was predominantly gastric with no signs of intestinal occlusion. Due to gravity and large tumour size, both the transverse colon and stomach were pulled by the tumour in the left flank and iliac

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fossa. The newly created situation has led to the difficulty of differential diagnosis both from a clinical, paraclinical, ultrasound and tomographic point of view.

The surgical treatment in transverse colon cancer is quite controversial, considering that its vascularization is made from the right colic artery, as well as from the left colic artery. It varies from transverse colectomy, extended right hemicolectomy or left hemicolectomy depending on the location of the tumour and the intention to radicalize the procedure.

When the transverse colon tumour invades the loco-regional area, the surgical treatment adapts to the situation, which may also be radical or palliative.(8,9,10) In our case, gastric invasion of the transverse colon tumour has led to great difficulties in differential diagnosis, mimicking a gastric intraparietal tumour, but which does not invade the mucous of the stomach or an extrinsic compression. Segmental colectomy - transverse colon and partial gastrectomy – resection of the large gastric curvature was performed.

## CONCLUSIONS

Transverse colon cancer can frequently cause loco-regional invasion, most frequently affecting the stomach. The predominant symptomatology of gastric pathology, as well as unclear paraclinical data, can lead to difficulties in differential diagnosis related to the starting point of the neoplasia: gastric or colonic.

Surgical treatment is extremely important in terms of radicality, but it depends on the origin of the tumours.

Large colon tumours are generally asymptomatic, therefore they can evolve for a long time without being perceived by the patient until the onset of symptoms related to the invasion of the surrounding organs.

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