YOUNG PATIENT AGE AS THE CAUSE OF DELAYED DIAGNOSIS OF GASTROINTESTINAL CARCINOMA

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Most patients diagnosed with gastrointestinal carcinomas are older people. The above-mentioned fact may lead to an erroneous finding that the problem does not concern patients aged between 20 and 30 years. Unfortunately, this assumption is often the reason for late diagnosis and delayed treatment of these malignancies. The study presented an example of three patients subject to surgical management of gastrointestinal carcinomas at the II Department of General and Gastroenterological Surgery, Medical University in Białystok.

**Key words:** pancreatic cancer, gastric cancer, colorectal cancer, young patient age

The problem of gastrointestinal cancer mainly concerns the elderly patients. The peak incidence of gastric carcinoma is observed during the sixth decade of life, the risk of colon cancer increases after the age of forty years with the highest values in case of patients aged between 70 and 80 years (1-7). In case of pancreatic cancer most patients are aged over 50 years (9-12). However, one should not forget that in several percent of cases the above-mentioned problem may concern young patients, influencing future proper diagnosis (1, 2, 4, 6, 8, 9, 11). The study presented three patients under 30 years subject to surgical treatment of gastrointestinal carcinomas.

**CASE REPORTS**

1. P.B., a 26-year-old female patient was admitted to the Department of Gastroenterological Surgery, due to retrosternal pain lasting for the past six months, accompanied by rapid post-prandial satiety and loss of body weight (3 kg) during a period of three months. The patient was initially treated with proton pump inhibitors (PPI) for a period of four months without gastrointestinal tract diagnostics. The patient was then directed for gastroscopy, which showed a 15 mm ulceration covered with a white fibrin located on the anterior wall of the lower part of the gastric body. The edges of the ulceration were irregular, reddened, and stiff. The material collected during gastroscopy for histopathological examination revealed the presence of a mucocellular carcinoma.

Computer tomography of the abdominal cavity demonstrated a thickened 12 mm anterior wall of the body of the stomach. The physical and laboratory examinations showed no significant abnormalities (Ca – 19.9-7.65 U/ml, CEA – 0.67 ng/ml, total protein – 6.4 g/dl, albumins – 3.75 g/dl). The patient was qualified for surgery. Intraoperatively, we observed a 5 cm tumor of the anterior wall of the stomach, as well as multiple enlarged mesenteric, intestinal, and transverse colon lymph nodes (fig. 1). Total gastrectomy and regional lymph nodes excision was performed (>D2). The continuity of the gastrointestinal tract was restored by means of the Double Tract Reconstruction (DTR) method. The postoperative period proved uneventful. The patient was discharged from the hospital in good general condition.

The histopathological result was as follows: pT3 N0 M0 mucocellular carcinoma, the dif-
fuse type, according to Lauren’s classification.

2. T.K., a 29-year old male patient previously diagnosed in two other centers was admitted to our department with symptoms of jaundice and periodic abdominal pain. Abdominal computer tomography showed a small lesion located near the head of the pancreas. Ultrasound endoscopy with fine-needle aspiration biopsy sampling of the pancreatic lesion was performed. Cytopathology revealed the presence of pancreatic epithelial cells without cytological features of malignancy. After the normalization of jaundice parameters the patient was discharged from the hospital.

After a period of three months the patient was admitted to the 2nd Department of General and Gastroenterological Surgery, Medical University of Białystok, due to recurrence of jaundice and loss of weight (13 kg). The physical examination showed signs of mechanical jaundice. Laboratory results were as follows: increased ALT – 93 IU/l, AST – 52 IU/l, and total BiliT – 5.73 mg/dl. Ca 19-9 and CEA markers were within normal limits. The patient was qualified for magnetic resonance cholangiopancreatography (MRCP). The examination revealed the presence of isolated segmental biliary duct stenosis, 30 mm in length, in the lower third of the common bile duct. An Amsterdam type prosthesis was implanted, 6 cm in length and 10 mm in diameter. The patient was discharged from the hospital with planned follow-up visits.

After three weeks the patient was once again admitted to our department, due to recurrence of jaundice, accompanied by abdominal pain and fever (<39°C). Laboratory results were as follows: AlkP – 129 Iu/l, ALT – 235 IU/l, AST – 62 IU/l, GGT – 786 IU/l, BiliT – 2.39 mg/dl. Computer tomography of the abdominal cavity revealed the presence of a 1 cm lesion located in the head of the pancreas, hypoechoic after contrast administration at the level of the superior mesenteric vein. Metastases or infiltration of surrounding structures was not observed.

The patient was qualified for elective surgery. Intraoperatively, we observed a tumor of the pancreatic head (1 cm in diameter) located near the common bile duct. The biliary duct prosthesis was removed and the patient underwent pancreatoduodenectomy by means of Traverso’s method, cholecystectomy and local lymphadenectomy (fig. 2, 3). The intraoperative histopathological examination result showed the presence of pancreatic cancer without lymph node metastases. The postoperative period was complicated by a biliary fistula, which was closed after conservative treatment. The patient was discharged from the hospital with planned control visits. The histopathological result was as follows: well-differentiated neuroendocrine carcinoma. Chromogranin (+), Synaptophysin (+), Insulin (-). Reactive lymph nodes and free surgical margins.
3. A 25-year old female patient treated for two years with iron preparations, due to microcytic anemia (under GP control) was admitted to our department because of a palpable hypogastric tumor. In the absence of therapeutic progress the patient performed abdominal computer tomography at her own cost, which confirmed the presence of a hypogastric tumor. The physical examination showed periodic (in the past two years) constipation with abdominal pain, general weakness, and loss of body weight in recent months (7 kg). During the physical examination we observed a pathological resistance in the right hypogastrium, 8 cm in diameter. Laboratory results were as follows: Hgb – 8.87 g/dl with low iron level (Fe – 12 µg/dl). Tumor markers were as follows: CA125 – 34.5 U/ml, CA – 19-9-12.42 U/ml. Colonoscopy showed the presence of an extensive infiltration with features of necrosis, constricting the lumen of the ascending colon over a distance of 5-7 cm. The patient was qualified for elective surgery. Intraoperatively, we observed a tumor located in the central part of the ascending colon, 8 cm in diameter, infiltrating the small bowel (fig. 4). The patient underwent extended right-sided hemicolectomy with the excision of the mesentery and local lymph nodes. The postoperative course proved uneventful. The patient was discharged from the hospital on the seventh day after surgery. The histopathological result was as follows: carcinoma planoepitheliale G2 pT3 with metastases to the mesenteric lymph nodes (1/11).

DISCUSSION

In today’s society, there still persists the mistaken assertion that the problem of cancer only concerns the elderly patients. This is partly connected with statistical data, which convince us of the above-mentioned.

The standard incidence rate of colorectal carcinoma in Poland is 15/100 000/year in case of female and 25/100 000/ year in case of male patients (5). It is relatively rare in patients before the age of 40 years. After forty the risk of colorectal carcinoma significantly increases with maximum values observed in the eight decade of life (5, 6, 7).

The peak incidence of hormonally inactive neuroendocrine pancreatic tumors is observed in the fifth decade of life (8, 10, 11, 12).

Gastric cancer is mostly associated with patients over the age of 60 years (1-4, 13).

Considering the above-mentioned data one can explain the delay of cancer diagnosis in young patients. Another reason for this situation is the relatively small number of symptoms, based on which one may assume the possibility of cancer. Due to the young age of patients they impose on us a more prosaic explanation of the above-mentioned.

In case of the patient with gastric cancer the initial diagnosis of peptic ulcer disease seemed logical (1, 3, 4, 13). Symptoms such as periodic, post-prandial, retrosternal pain may be present in both cases, similarly to the rela-
tively small weight loss, especially in conjunction with patient age. Long-term treatment without previous diagnostics in a symptomatic patient proved to be a mistake. Gastroscopy and histopathological evaluation enabled to establish the diagnosis and initiate proper therapy.

In case of the other patient diagnostic difficulties were also observed, being associated with young age (29 years) and unclear course of the disease. The peak incidence of neuroendocrine tumors is observed in the fifth decade of life. It is believed that they occur with similar frequency in both sexes. The five-year survival ranges between 30 and 63%, and in case of prognosis one should consider the size of the tumor, metastatic lesions, and infiltration of surrounding structures (9, 10). Due to lack of secretion or low values clinical symptoms usually appear late and are associated with local tumor growth or its infiltration of surrounding structures. Biochemical diagnostics is used to assess the level of chromogranin, hCG, neurotensin and grelin (10, 11, 12). CT, EUS, USG, and MRI are used in imaging diagnostics. The only effective method of treating neuroendocrine tumors is surgery. In case of lesions >2 cm surgery should also include organs infiltrated by the primary lesion. In case of small lesions (<2 cm) sparing procedures may be applied, such as the local enucleation of the lesion when located in the body of the pancreas. In case of lesions located in the tail of the pancreas peripheral pancreatic resections are recommended, when located in the head of the pancreas- pancreatoduodenectomy (8-12).

When diagnosing a patient in the direction of pancreatic lesions, one should take into consideration the possibility of ductal adenocarcinoma, being the most common focal lesion. This was the case in the described patient. The patients’ young age, low levels of tumor markers, and negative fine-needle aspiration biopsy result (BAC) under EUS control proved confusing. Considering the relatively small size of the lesion (1 cm), well-differentiated, lack of metastases to the lymph nodes and surrounding structures, as well as vascular infiltration, prognosis seems good. Unfortunately, the young age of the patient is disturbing.

A similar clinical course was observed in case of the patient with a diagnosed squamous-cell carcinoma of the colon. The above-mentioned is very rare. It was first described by Herxheimer in 1907, although in available medical data, Schmidtman (4, 5, 6, 14) was the first to describe the tumor in 1919. The clinical course of the disease, treatment and prognosis are similar to that of adenocarcinoma (4-7).

The patient was unsuccessfully treated for a period of two years by means of iron preparations without proper diagnostics, despite persistent anemia. The cause of anemia was associated with significant monthly bleeding. At the same time there was a large palpable resistance in the abdomen, to which nobody paid attention. The patient claimed that prior to hospitalization no one examined her, only control laboratory results were performed. The authors presented these cases as a sort of warning before abandoing proper diagnostic examinations, despite persisting clinical symptoms. Unfortunately, the young age of patients does not exclude the possibility of gastrointestinal cancer presence, which should be ruled out in the first place. In order to better illustrate the problem of malignancy in young patients, Japanese Authors should be cited, which mainly focused on gastric cancer. Most of these studies clearly confirmed the fact that cancer disease in young patients remains a challenge, and despite the advances in medicine the above-mentioned lesions are detected late and in advanced stages. Similar observations were observed by Czech Authors who published a study showing the problem of late diagnosis, and thus, ensuing poor treatment results, considering young patients with confirmed neoplastic disease (13).

REFERENCES