RESEARCH ARTICLE

SYNCHRONOUS GASTRIC ADENOCARCINOMA AND GASTRIC PRIMARY FOLLICULARLYMPHOMA AS A COLLISION TUMORS IN THE STOMACH CASE REPORT

Ratbi El Amine¹, Bakali Younes¹, Chairi Mohamed Said¹, Alaoui Mhamdi Mouna¹, Sabbah Farid¹, Hrora Abdelmalek¹, Raiss Mohamed¹, Laraqui Yasmine⁵, Derqaoui Sabrine², Bernoussi Zakiya², Jahid Ahmed², Znati Kaoutar² and Zouadia Fouad²

¹. Surgical Clinic C, University Mohamed V, Rabat, Morocco.
². Department of Pathology, University Mohamed V, Rabat, Morocco.

Abstract

The simultaneous association of epithelial and lymphoid tumour of the digestive tract is extremely rare; it is most often a collision tumor combining the synchronization of adenocarcinoma end B lymphoma. We report the observation of a 45-year-old patient without a history who was hospitalized for management of adenocarcinoma of the sub-cardiac region stomach. The patient was benefited on chemotherapy according to FLOT protocol and then had a total gastrectomy and Roux-en-Y oesophagojejunostomy on laparoscopic; the result of the histological study showed a well differentiated adenocarcinoma and incidentally lymphoid proliferation has small nodular architecture cells whose immunohistochemistry study was in favour of gastric and ganglionic lymphoma type B. The patient’s postoperative course was uneventful.

Introduction:

Simultaneous development of epithelial and lymphoid tumour in the same patient as a collision tumour in the stomach has been rarely reported. Therefore, the concept of synchronization has been reported in 1931 by Shuback, currently about 60 cases have been reported in the literature. Adenocarcinoma of the stomach is the most common malignancies, although the primary lymphoma represents only less than 3% of all gastric malignancies (1). In this respect, we would like to report in this article the first case of simultaneous gastric adenocarcinoma and lymphoma in our service.

Case Report:

A 45-years-old man, has complained epigastric pain for 5 months with vomiting after meals, weight loss and weakness, his medical story was without notable pathological. His vital signs were normal, while physical examination was founded discomfort and tenderness during epigastric palpation without any other associated signs. Laboratory studies revealed anaemia with a haemoglobin level of 10.2 g/dl, a platelet count a 250000/mm³ and white count a 7650/mm³. Endoscopy showed a lesion infiltrating the sub-cardiac region measuring 3 cm, multiple biopsies from the process revealed carcinoma. Clinical staging with physical examination and computed tomography (CT) scan of the chest abdomen and pelvis showed no findings suggestive of metastatic disease. The tumour was thus considered to be localized in the stomach. The decision approach of careful multidisciplinary team was in favour of the chemotherapy according to the FLOT regimen. Indeed, after 4 sessions of preoperative
chemotherapy, the patient submitted a laparoscopic total gastrectomy and Roux-en-Y oesophagojejunostomy with distal jejuno-jejuno-anastomosis and lymphadenectomy enlarged lymph nodes was performed. Macroscopically, the resection specimen revealed a budding tumour measuring 3x2.5x2 cm at 5 cm from the oesophageal limit with a diffuse and large appearance of folds. Histologic examination revealed the well differentiated intra-mucosal adenocarcinoma in the fundus measuring 1.5 cm (Fig 1), associated to lymphoid proliferation with small nodular architecture cells requiring immunohistochemical examination. An immunohistochemical study on these lymphoid nodules: CD20 + and bcl2 +, CD5 and CD3 marked some reactional cells (Fig 2, 3, 4 and 5). The final histological diagnosis was synchronous adenocarcinoma and lymphoma malignant follicular grade 1-2 WHO at gastric and lymph node location. The patient’s postoperative course was uneventful and discharged undergoing postoperative chemotherapy.

Fig 1: Proliferation of gastric carcinomatous cells.

Fig 2: Immunohistochemistry was positive for CD3.

Fig 3: Immunohistochemistry was positive for CD5.
Discussion:
In this study two kinds of simultaneous malignancy were recognized: gastric adenocarcinoma and lymphoma follicular. The occurrence of this situation in the same patient is very exception (2), a few cases have been reported in the English language literature: about 56 only (3).

It occurs in men more than women with a sex ratio 2.3 in Japan with the mean of age of 56.3 years (3,4).

Clinically, both tumours are not specific, the same digestives symptoms appear even in case of synchronization,

Clinically, if symptomatology is non-specific it does not orient to any one of the both, and symptoms may be varied to dyspepsia syndrome with ulcerative pain or even digestive haemorrhage. Physical examination is poor, and usually normal. In Japanese literature, the presence of an abdominal mass is reported in less than 20% of cases (5). Endoscopic can be showed the most common aspects as erythematous, erosion or ulcerated lesion or budding lesion. None of these aspects is specific. Therefore, it is difficult to diagnosis the both tumors before surgery. Only two previous cases have had an accurate preoperative diagnosis of the two different tumors (6,7). In our patient, the carcinoma was previously diagnosed on endoscopy as lesion infiltrating the fundus mucosa, for that, we have recommended the neo-adjuvant therapeutic strategy and a total gastrectomy include all draining loco-regional lymphatics that may contain micro-metastases was performed. Therefore, the gastric follicular lymphoma low grade was revealed in the specimen total gastrectomy. In the literature, the synchronous and metachronous lymphoma are histologically low grade (8). Nakamura et al (8), found that the size most lymphomas was very larger than adenocarcinomas and the depth of invasion tended to be deeper in lymphomas than adenocarcinomas, suggested that lymphoma may be developed before adenocarcinoma or the risk of developing adenocarcinoma increases when lymphoma is present. Furthermore, the incidence of previous carcinoma in synchronous tumors was really high. In Japan, where screening is practiced, almost 50 % of gastric carcinoma is in the early step (9).
The author suggested that lymphomas preceded the carcinogenesis. In the recent suggestions, H. pylori have different roles in gastric carcinogenesis than lymphomatogenesis (1,10,11). When H. pylori are not proved in the specimens taken at endoscopic, this explains that the biopsy of the non-crypts was not achieved or the patient received an antibiotic therapy which eradicated H. pylori (4). Indeed, that is what was made in our case in our opinion. The prognosis of gastric synchronous tumor appeared to be similar to that for gastric adenocarcinoma (8,10). These results, in addition to the fact that many of the lymphomas were low grade (8). In our case the adenocarcinoma was a well differentiated stage IIIA with poor prognosis. D2 radical surgery has been universally recognized as the most effective treatment for advanced gastric cancer (12). The management of the gastric synchronous tumors appears to be debatable and adoption of excision of both tumors at the same time is possible. Treatment strategies for non-Hodgkin’s lymphoma are well established. But the optimal approach still remains not well coded, especially for gastric lymphoma (13,14). It seems that the ideal treatment combines a total gastrectomy associated to radiotherapy and chemotherapy on postoperative adapted to each tumor component (15,16).

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