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RESEARCH ARTICLE

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

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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-cardial 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

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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 malignum follicular grade 1-2 WHO at gastric and lymph node location. The patient's postoperative course was uneventful and discharged undergoing postoperative chemotherapy.

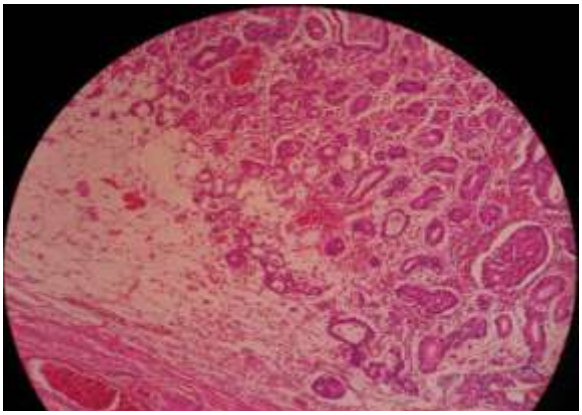

Fig 1:- Proliferation of gastric carcin omatous cells.

Fig 2:- Immunohistochemistry was positive for CD3.

Fig 3:- Immunohistochemistry was positive for CD5.

Fig 4:- Immunohistochemistry was positive for CD20.

Fig 5:- Immunohistochemistry was positive CKAE1.

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). In conclusion 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).

References:-

1. Lee SY, Kim JJ, Lee JH, Kim YH, et al (2005) Synchronous adenocarcinoma and mucosa-associated lymphoid tissue (MALT) lymphoma in a single stomach. Jpn J Clin Oncol 35:591–4
2. Dąbrowski A, Ciechański A, Wallner G. Associa- tion of non-Hodgkin's lymphoma of stomach with other neoplasms of gastro-intestinal tract. Gas- troenterologia Polska 1997; 4: 427–9.
3. Hamaloglu E, Topaloglu S, Ozdemir A, Ozenc A (2006) Synchronous and metachronous occurrence of gastric adenocarcinoma and gastric lymphoma: a review of the literature. World J Gastroenterol 14:3564-74
4. Bellil S, Kchir N, Chatti S, et al (1998) Tumeur de collision syn- chrone gastrique : association d'un lymphoma MALT de haut grade et d'un carcinome. Revue de la littérature. Ann GastroentérolHépatol 34 :251-5
5. Rekik W, Chelly I, Nfoussi H, et all (2012) Association of adenocarcenoma and lymphoma of the stomach: report of four cases. J. Afr. Cancer 4:57-61
6. Kane EP, Weingarten LA, Payson BA, Mori K, Sarlin JA. Synchronous ulcerating adenocarcinoma and malignant lym- phoma of the stomach. Am J Gastroenterol 1982; 77:461-3.
7. Kelly SM, Geraghty JM, Neale G. H. pylori, gastric carci- noma, and MALT lymphoma. Lancet 1994; 343:418.
8. Nakamura S, Aoyagi K, Iwanaga S, Yao T, Tsuneyoshi M, FujishimaM.Synchronous and metachronous primary gastric lymphoma and adenocarcinoma: a clinicopathological study of 12 patients. Cancer 1997; 79 (6): 1077–85. Com- ment in: Cancer 1998; 82 (1): 226–7
9. Endo M, Habu H. Clinical studies of early gastric cancer. Hepato-Gastroenterology 1990; 37:408–10.
10. Sakai T, Ogura Y, Narita J, et al (2003) Simultaneous early adenocarcinoma and mucosa) associated lymphoid tissue (MALT) lymphoma of the stomach associated with Helicobacter pylori infection. Gastric Cancer 6:191-6
11. Wotherspoon AC, Isaacson PG (1995) Synchronous adenocarcinoma and low grabe B-cell lymphoa of mucosa associated lymphoid tissue (MALT) of the stomach. Histopathology 27:325-31.
12. D'Ugo D, Rausei S, Biondi A, Persiani R. Preoperative treatment and surgery in gastric cancer: friends or foes. Lancet Oncol. 2009; 10:191e195. https://doi.org/10.1016/S1470-2045(09) 70021-X.
13. Knast W, Strutyñska-Karpiñska, Rabczyñski J. Surgical treatment of patients with multiple car- cinomas. Med SciMonit 2001; 7 (6): 1256–62.
14. Chang MC, Huang MJ, Su YW, Chang YF, Lin J, Hsieh RK. Clinical outcome of primary gastric lymphoma treated with chemotherapy alone or surgery followed by chemotherapy. J Formos Med Assoc 2006; 105 (3): 194–202.
15. Hamaloglu E, Topaloglu S, Ozdemir A, Ozenc A (2006) Synchronous and metachronous occurrence of gastric adenocarcinoma and gastric lymphoma: a review of the literature. World J Gastroenterol 14:3564-74
16. Akosal AB, Clark DM, Desa L (1990) Synchronous adenocarcinoma and primary malignant lymphoma of the stomach. Postgrad Med J 66:778–80.