

Unusual metastasis of left colon cancer: considerations on two cases

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Abstract. Usually, left colon cancer metastasis concerns liver, abdominal lymph nodes and lungs. Other localizations are quite rare occurrences. In spite of this, some uncommon metastasis sites are reported in literature, such as: peritoneum, ovaries, uterus, kidney testis, bones, thyroid, oral cavity and central nervous system. We report two cases of unusual localizations of left colon cancer metastasis localization, one into the retroperitoneal space and the other at the left axillary lymph nodes and between liver and pancreas. In the first reported case the diffusion pathway may have been the lymphatic mesocolic vessels, partially left in place from the previous surgery. In the second case the alleged metastatic lane may have been through the periumbilical lymph nodes to the parasternal lymph nodes and then to the internal mammary ones, finally reaching the axillary lymph nodes. (www.actabiomedica.it)

Key words: Left colon cancer, uncommon metastasis, metastatic lanes

Introduction

Metastatic spread from colonic carcinoma is quite predictable, initially through lymphatic vessels, followed by the hematogenous route. The most common metastatic sites of colorectal cancer are regional lymph nodes (50-70%) and liver (35-50%); common sites are lung (21%), peritoneum (15%), and ovaries (13,1%); In this work, we report two cases of uncommon metastasis of colonic cancer, one into the retroperitoneal space and the other at the left axillary lymph nodes and between liver and pancreas.

Case 1: retroperitoneal localization

Case 1 involves a 60-year old male. He came to our clinic with a diagnosis of a peritoneal mass. He had undergone a left hemicolectomy in another hospital for a rectum-sigmoidal junction cancer. MRI-scan showed

an intraperitoneal mass (max diameter 5 cm) just below the left kidney, referred to as a neoplastic recurrence. Colonoscopy showed no alteration, neither in the anastomosis area, nor in the other explored tracts. Tumor-markers serum levels were high: CEA 31.7 ng/ml; TPA 102 UI/ml; Ca-50 83.6 UI/ml; but α -feto-protein was quite normal. The patient underwent laparotomy to remove the mass, but nothing was found during the left parietocolic exploration, but part of the mesocolon related to the previously excised left colon. In fact the mass was located in the retroperitoneal lodge. During the exploration of this area, we found a mass having a diameter of 8-9 cm (Fig. 1) that was in contact with the surrounding structures. The mass was excised and the subsequent histologic analysis revealed its metastatic nature. After a regular post-operative course, the patient was treated with radiotherapy: 25 cycles-5000cGY. He underwent a 8 months disease free follow-up procedure, then he had lung metastasis at 18 months from the operation.

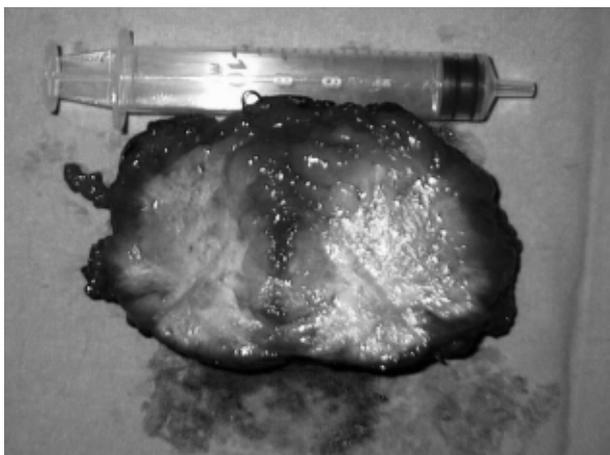


Figure 1. Retroperitoneal mass

Case 2: Axillary localization

Case 2 involves a 49-year old male which came to our clinic with a diagnosis of abdominal lymph node metastasis from a left colon tumor (CT scan report). Three years earlier, the patient had undergone an emergency laparotomy for bowel obstruction and in that occasion an ileal loop resection and a left colon resection with temporary left colostomy had been performed. The histologic analysis had revealed an invasive, undifferentiated left colon cancer (G2) and an ileal metastasis. As a consequence the patient had undergone chemotherapy. Two years later he had undergone a new surgical procedure to remove some enlarged axillary lymph nodes that the histological ex-



Figure 2. Axillary mass

amination had revealed to be of metastatic nature. In our clinic, during physical examination, we found a large mass in the axilla area which had a diameter of 10 cm, and the patient underwent the excision of the axillary mass and exploratory laparotomy which revealed another mass between the liver and the pancreas that was not resection susceptible. Histological analysis of both lesions revealed their metastatic nature (Fig. 2). The patient was discharged on 10th postoperative day and was sent to the radiologic unit to undergo abdominal and axillary radiotherapy. He had massive peritoneal carcinosis one year later.

Discussion

Colonic metastasis at rare sites are central nervous system (8,3%), bone(8,7%), kidney (6,6%), testis, penis, uterus and oral cavity. However, very rare metastasis to adrenal gland (4,3%), hilar lymph node, skin and muscles have been reported and occasional case-reports of metastasis to other organs, such as pancreas, maxillary sinus, thyroid, and knee synovial have been described. Therefore, although local lymph nodes, liver and lungs, are common initial sites of spread of colorectal cancers, disseminated metastasis that spare of these organs are possible. In several cases, the diffusion pathways of unusual metastasis were not well defined, or were only supposed. If tumour cells invade vessels, they may originate a cutaneous metastasis at distant sites, while if they involve lymphatic vessels, late local recurrence at primary site is the most common result. It is interesting that less than 6.4% of all patients with malignancy had cutaneous metastasis at the moment of diagnosis. Such metastasis usually occurs only after a certain time from the identification of the primary tumour, although a few cases of synchronous presentation are known. The most frequent site of cutaneous metastasis from colonic carcinoma is the abdomen, followed by extremities, perineum, head, neck and penis. About case 1, retroperitoneal metastasis are uncommon. Some authors report an incidence of 0.1%, but the literature reports on this field are so few that is not easy to set the exact incidence of such metastasis. Concerning the possible metastatic lanes, some authors emphasize the role of mesorectum excision (TME) re-

garding the prevention of local recurrences (9). Though fully in agreement with this theory, in addition we highlight the probable role of the mesocolon radical excision in the prevention of the metastasis genesis. Therefore in the reported case, the diffusion lanes may have been the mesocolic lymphatic vessels, because of its partial excision. In case 2 we were unable to pinpoint the metastatic lane. It could be possible that the metastatic lane may have been through superficial abdominal lymphatic vessels, precisely the periumbilical ones, then to the parasternal lymph nodes and then to the internal mammary nodes, finally reaching the axillary ones.

Conclusions

Regarding case 1, we hypothesize that, the radical mesocolon excision has an important role in the prevention of metastasis genesis; a role that is at least equivalent to that of the mesorectum excision. In the other patient (case 2), the precise metastatic lane remains in doubt. Nevertheless there is a high probability of a neoplastic cells migration through the abdominal wall lymphatic vessels. We underline the probable role of the surgery effect on the lymphatic system on the genesis of unusual metastasis, together with the need of a radical excision of the mesocolon during left hemicolectomy

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