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Synchronous TNE of Appendix and Colon Adenocarcinoma: Case Report

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Abstract

Colorectal cancers represent the predominant malignancies affecting the gastrointestinal tract. primary appendicoeal cancer is rare and difficult to diagnose because it has not specific symptoms. The final diagnosis is most often made post operatively on microscopic examination. Appendicael neuroendocrine tumors is the most common primary neoplasm and it represent 95 % of appendicoeal tumor. Synchrounous presentation of TNE off appendix and colon carcinoma is a rare entity. We report a case of an asymptomatic appendiceal neuroendocrine tumor detected in histopathological and immunohistochemistery specimen for an obstructing cecal adenocarcinoma.

Keywords: colon carcinoma; appendicoecal Tumor; synchrounous colon tumor; obstruction cecal cancer

Case report

A 77 years old man with unremarkable medical history was admitted in our hospital for an acute intestinal obstruction syndrom: abdominal distension and vomiting. On physical examination, he was vitally stable, afebrie with a distended abdomen, right sided tenderness and 3 cm palpable mass in the right iliac fossa. Presumptive preoperative diagnosis included appendicoecal absess and cecal carcinoma. Computed tomography scan for chest, abdomen and pelvis revealed an obstructing cecal tumor with invasion of Bauhin valve and normal appearence of the appendix.

(TDM)

Laboratory test and serum tumor markers including carcinoembryonic cancer antigen revealed normal results. At emergency, laparotomy a 5 cm diameter cecal tumor was found. There were no intraoperative finding of appendicoeal neoplasm. A right hemicolectomy and ileocolic anastomosis were performed (figure 1). The patient was discharged on the six postoperative day and reffered for adjuvant chemotherapy.

Histopathology and immunohistochemestry revealed a moderately differentiated cecal adenocarcinoma with metastasis in1 of 15 regional lymphnodes, stage T3N1M0 and well differenciated G1 NET of appendix. The patient was reffered for adjuvant chemotherapy.

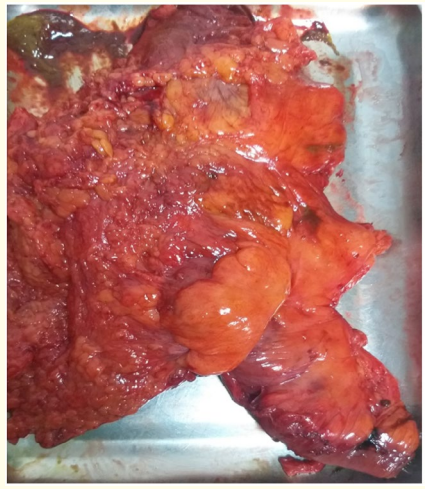

Figure 1: The right colectomy specimen.

Discussion

Neuroendocrine tumors most often affect the rectum and descending colon, with appendicular localization accounting for 5-15% [1]. The NET is the most common primary appendicoecal tumor with predominance in women. It originates from suepithelial neuroendocrine cells [2]. Preoperative diagnosis remains rare and difficult, given the inaccessibility of the appendicular mucosa despite radiological and endoscopic advances. It has'nt specific symptoms and the most common symptoms are similar to acute appendicitis one [3]. The radiological and per operative appearance of the appendix is normal in most cases [4]. The majority of these tumours are localised and less than 1cm in size [5]. Larger tumours, over 2 cm, have a high risk of lymph node and liver metastases [6]. in the majority of cases, neuroendocrine tumours of the appendix occur sporadically, but association with other primary malignancies is not exceptional [7]. synchronous tumours of the colon are adenocarcinomas. The first reported case of synchronous carcinoids with non-carcinoid gastrointestinal tract neoplasm was documented in 1949 by Pearson and Fitzgerald [8]. Patients with appendicular tumors have synchronous colon tumors in 25% of cases [9]. Lohsiriwat's study concluded that one per cent of CRC patients had metastatic lesions in the mesoappendix [4]. In view of this frequency, some studies have advocated combining appendectomy with all colorectal surgery, and because of the difficulties involved in diagnosing appendicular tumours preoperatively. Khan and Moran, in a study of 169 colorectal cancer patients who had undergone incidental appendectomy, found that the incidence of synchronous appendicular and colorectal cancer was 4.1%, justifying an additional appendectomy in colorectal cancer [10]. Albright et al have also proposed appendectomy in colorectal surgery and confirmed that it is cost-effective [11].

The pathogenesis of the association between colorectal adenocarcinoma and NET is unclear. The common embryonic origin of the appendix, colon can explain this association [12]. A theory proposed by Kato et al. suggests a common stem cell that could undergo similar genetic mutations and give rise to different types of gastrointestinal malignancies [13].

The hypothesis of a paracrine effect of secretory peptides by neuroendocrine cell tumours with synchronous tumours: the study by Seretis et al showed the effect of serotonin in this tumour association [14]. Thomas et al concluded that gastrointestinal hormones such as gastrin and cholecystokinin play a role in tumour genesis [15].

The prognosis of neuroendocrine tumor depend on size, grade, and stage of the tumor [12]. Appendectomy is usually sufficient for the small neuroendocrine tumor small than 1 cm with a low risk of metastasis, for tumors larger than 2 cm right hemicolectomy is

recommended [16]. There are few data available in the literature on the management of these two synchronous tumors, requiring individualized management for each patient [17].

Conclusion

Appendicular NETs are discovered incidentally in the majority of cases during the histopathology analysas for another colon tumor localisation, pathological examination allows the identification of poor prognostic factors. Our case confirm the importance of histo-pathological examination of the surgical specimen in patients undergoing colorectal surgery to ensure the detection of synchronous tumors.

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