

Carcinoma Caecum Misdiagnosed as Appendicitis: A Case Report

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Abstract: A 20 years young male presented with history of pain right lower abdomen for 3 months. Pain was intermittent, colicky in nature. There was history of nausea and occasional episodes of vomiting. On detailed history he had undergone open appendectomy 3 months back but the symptoms persisted. Patient was evaluated with routine blood investigations, Ultrasound and CT scan abdomen which showed fluid filled bowel loops with distended caecum. Exploratory laparotomy showed a tumour like firm growth involving caecum with distended terminal ileum. Right radical hemi-colectomy with end to end ileo – transverse anastomosis done.

Keywords: Caecum, Tumour, Laparotomy, Hemi-colectomy

INTRODUCTION

Colon cancer is a disease of the large intestine which starts at a structure called the caecum, located in the right lower quadrant of the abdomen, and continues through all portions of the abdomen to its junction with the rectum, located in the deep pelvis [1].

Carcinoma in the right colon and caecum more often present with melena and fatigue associated with anaemia, or abdominal pain [2]. Other presentations are mass in right iliac fossa, it can be the apex of an intussusception presenting with the symptoms of intermittent obstruction, sometimes picked up on table for appendectomy. 25% caecal carcinoma mimics signs of appendicitis [3].

The association between acute appendicitis and colon cancer (mostly caecal) is a rare entity particularly before the age of 40 years [4, 5]. Above that age a higher incidence of association was internationally reported [4]. The first case describing this association was reported in 1906 [4, 6]. There is a great risk, as the diagnosis in most cases is frequently overlooked and the case is consequently mismanaged always care should be taken to exclude malignancy in this area whenever there is doubt, as failure to do so will lead to passing through multiple operations, followed by advancement of the malignancy [7].

CASE REPORT

A 20 years young male presented with history of pain right lower abdomen since 3 months. Pain was colicky nature, intermittent, non-radiating and aggravated after food intake and relieved with rest and medications. Patient had associated symptoms of nausea and occasional episodes of vomiting which was non-bilious and non-projectile. There was no history of melena. Patient also gave history of fullness of lower abdomen after food intake which relieved on itself. No history of constipation or loose stools. Loss of appetite and significant loss of weight (8.5 kgs in last 5 months) present. On detailed history patient was operated outside for appendectomy 3 months back for similar complaints but symptoms persisted. Details of surgery and histo-pathological reports were unavailable. There was no significant family history.

On examination patient was moderately built and nourished. Pallor was present. Other general physical appearances were normal. Per abdomen examination showed a scar of Gridiron incision in right iliac fossa. Inspection appeared normal. On palpation a non-tender mass about 5x5 cms felt in right iliac fossa which was freely mobile, soft in consistency, yields on pressure. Rest of abdomen appeared normal. A clinical diagnosis of appendicular phlegmon was made. Patient evaluated with routine blood investigations, ultrasound showed fluid filled bowel loops. Patient was subjected to CECT of abdomen which showed fluid filled bowel loops with distended caecum and terminal ileum (Fig. 1 & 2). Patient underwent exploratory laparotomy with

right para median incision which revealed a distended caecum and terminal ileum with tumour like growth situated on posterior aspect of caecum about 3 x 3 cms. Caecum had dense adhesions due to previous surgery. Right radical hemi-colectomy with two layer end to end ileo - transverse anastomosis was performed (Fig. 3).

Post-operative period was uneventful. Histopathology revealed a moderately differentiated adenocarcinoma (mucinous pattern) of caecum extending into sub-serosal fat with pathologically negative lymph nodes (Fig. 4 & 5). Patient referred to medical oncologist for further management.

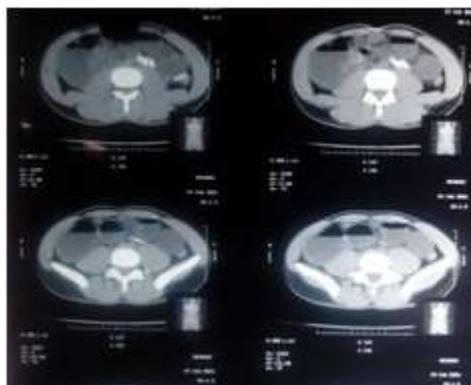


Fig. 1

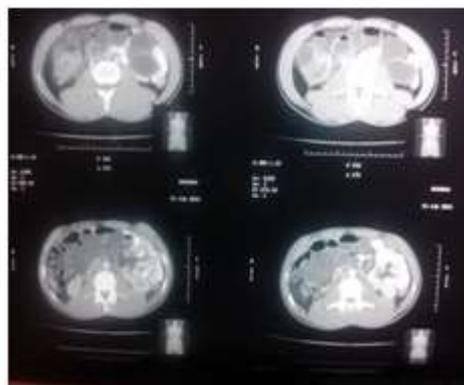


Fig. 2

Fig. 1 & 2: CECT of abdomen which showed fluid filled bowel loops with distended caecum and terminal ileum



Fig. 3: Right radical hemi-colectomy with two layer end to end ileo - transverse anastomosis was performed



Fig. 4

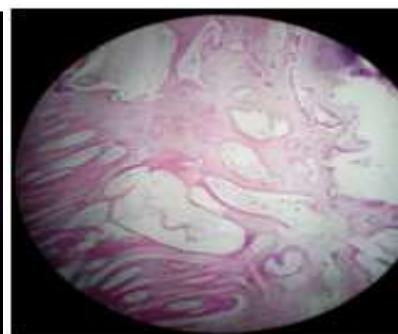


Fig. 5

Fig. 4 & 5: Histopathology revealed a moderately differentiated adenocarcinoma (mucinous pattern) of caecum extending into sub-serosal fat with pathologically negative lymph nodes

DISCUSSION

The distribution of colorectal malignancy is approximately 65% occur in the recto-sigmoid area, 5% in the caecum [8, 9]. Colorectal adenocarcinoma is predominantly a disease of the old and less than 1% of patients are below 20 years in most reports. [10]. Our case is one such rare considering the age of the patient.

Tumours arising from caecum are usually of ulceroproiferative type, which was a rare gross variation of stenosing type as per the pathologist seen in our patient.

There is a well known association between carcinoma of the colon and appendicitis [11-13], but it is rare in young (less than 40 years) [5]. In young patient colon cancer presents as acute appendicitis making difficulties in diagnosis and management [6, 12].

The incidence of acute appendicitis is reported to be 3.4-15% as the presenting symptom of caecal or ascending colon cancer [14-18]. Our patient had similar complaints of appendicitis for which he was operated with appendectomy (outside) but later presented with mass in right iliac fossa after 3 months, after thorough evaluation and laparotomy it turned out to be a malignant growth of caecum.

Histologically only 10% of colorectal malignancy are of mucinous variety. The term "mucinous" is applied to those cases, in which there is secretion of a substantial amount of extracellular mucus (>50% of tumour area), appreciated, on gross inspection of the cut surface of the tumor [16]. Same rare histological pattern was observed in our patient.

CONCLUSION

The reason for presenting this article is to create an awareness and seriousness of increasing incidence of caecal malignancy especially in much younger age group. The need for complete evaluation which includes (proper clinical evaluation, investigations and also intra – operative mindful of) of high suspicion of malignancy if patients of appendicitis gives history of unusual associated symptoms like loss of weight, appetite and pallor on clinical examination which were only evident symptoms in our patient. Such awareness will lead to earlier diagnosis and accurate treatment of the malignancy with melioration of prognosis.

REFERENCES

1. Yeatman TJ; Colon Cancer. In Encyclopedia of Life Sciences. Macmillan Publishers Ltd., Nature Publishing Group, 2001. Available from [http://web.udl.es/usuaris/e4650869/docencia/segon_cicle/genclin98/recursos_classe_\(pdf\)/revisionsPDF/ColonCancer.pdf](http://web.udl.es/usuaris/e4650869/docencia/segon_cicle/genclin98/recursos_classe_(pdf)/revisionsPDF/ColonCancer.pdf)
2. Townsend CM, Beauchamp RD, Evers BM, Mattox KL, Sabiston DC; Sabiston Textbook of Surgery: The Biological Basis of Modern Surgical Practice. 18th edition, Saunders, Philadelphia, 2008.
3. Rosai J; Rosai and Ackerman's Surgical Pathology. 9th edition, Mosby, Philadelphia, 2004.
4. Kensarah, A; Acute appendicitis masking carcinoma of the cecum: Case study and review of the literature. Egyptian Journal of Surgery, 2011; 4: 30.
5. Sánchez AA, Torres EMT, Martínez DC, Peña SR; Colon cancer presenting as an appendiceal abscess in a young patient. *Can J Surg.*, 2008; 51(1): E15–E16.
6. Ruderman RL, Strawbridge HTG, Bloom HW; Carcinoma of the cecum, presenting as acute appendicitis: Case report and review of the literature. *Can Med Assoc J.*, 1967; 96(19): 1327–1329.
7. Collins DC; A study of 50 000 specimens of the human vermiform appendix. *Surg. Gynecol. Obstet.* 1955; 101:437-45.
8. Pascal RR, Fenoglio-Preiser CM, Noffsinger AE; Neoplastic diseases of the small and large intestine. In Silverberg SG editor; Principles and Practice of Surgical Pathology and Cytopathology. 3rd edition, NY: Churchill Livingstone, Inc., 1997: 1801-66
9. Jairajpuri ZS, Rana S, Jetley S; Coexistent colonic tuberculosis and mucinous adenocarcinoma: A causal or a casual link? *International Journal of Health and Allied Sciences*, 2014; 3(3): 190-193.
10. Ameh EA1, Nmadu PT; Colorectal adenocarcinoma in children and adolescents: a report of 8 patients from Zaria, Nigeria. *West Afr J Med.*, 2000; 19(4): 273-276.
11. Ramsay JA, Rose TH, Ross T; Colonic carcinoma presenting as an appendiceal abscess in a young woman. *Can J Surg.*, 1996; 39(1): 53-56.
12. Adebamowo AC, Ezeome ER; Acute appendicitis and colonic carcinoma in the young: report of two cases. *East Afr Med J.*, 1996; 73:563-4.
13. Peck JJ; Management of carcinoma discovered unexpectedly at operation for acute appendicitis. *Am J Surg.*, 1988; 155(5): 683-685.
14. Armstrong CP, Ahsan Z, Hinchley G, Prothero DL, Brodribb AJ; Appendicectomy and carcinoma of the caecum. *Br J Surg.*, 1989; 76(10): 1049-1053.
15. Peltokallio P; Acute appendicitis associated with carcinoma of the colon. *Dis. Colon Rectum*, 1966; 9(6): 453-456.
16. Mayo CW; Malignant lesions of the right portion of the colon. *Mayo Clin Proc.*, 1941: 67-69.
17. Costello C, Saxton J; Appendicitis and cancer. *Postgrad Med.*, 1951; 9(6): 482-486.
18. Lai HW, Loong CC, Tai LC, Wu CW, Lui WY; Incidence and odds ratio of appendicitis as first manifestation of colon cancer: A retrospective analysis of 1873 patients. *J Gastroenterol Hepatol.*, 2006; 21(11): 1693-1696.
19. Morson BC, Large intestine: Malignant epithelial tumors. In Morson BC, Dawson IM, Day DW, Jass JR, Price AB, Williams GT editors; Morson and Dawson's Gastrointestinal Pathology. 3rd edition, Oxford London: Blackwell Scientific Publication, 1990: 597-629.