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Short Communication

Colonic tuberculosis masquerading as colonic carcinoma

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Abstract

Tuberculosis is leading cause death in developing countries. Extra pulmonary tuberculosis constitutes 30% of cases and in that abdominal tuberculosis is increased now a days. Abdominal tuberculosis and colonic carcinoma carry similar clinical and radiological profile hence such mimickers are difficult to diagnose and treat subsequently.

We encountered a 45 years female presented with chronic abdominal pain and fever with clinical suspicious of colonic cancer.USG abdomen showed ulceroinfitrative lesions with strictures s/o malignancy in ascending colon. Right hemicolectomy reveals abdominal tuberculosis. We highlight the importance of early, prompt diagnosis and histopathological diagnosis of mimickers of colonic cancers.

Keywords: Abdominal tuberculosis, Malignancy, Strictures.

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Tuberculosis is chronic granulomatous infectious disease, which can involve any vascularised tissue or any organ. Its major cause of morbidity and mortality throughout the world.[1] Abdominal tuberculosis constitutes 3% cases of tuberculosis and 15 to 30% cases of all extrapulmonary tuberculosis.[1] Ileo-cecal junction or jejunum involves 75% cases of abdominal tuberculosis involving GIT.[1] Other main organs involve are solid organs like liver, spleen or pancreas with mesenteric/omental/peritoneal/enteric lymph nodes. [1,2] GIT tuberculosis masquerading as colonic cancers clinically as well as radiologically.[2] Abdominal pain, fever and weight loss s/o malignancy clinically and strictures, thickened walls or ulceroinfitrative lesion along with lymph node mass s/o growth or carcinoma radiologically.[2,3]

We focus on such case in this short communication as mimicker of colonic malignancy as it turned out to be colonic tuberculosis on histopathology.[3] The small biopsy is useful in initial disease as diagnosed early and treated by medical AKT therapy. In our case, 45/female presented with multiple strictures with thickened wall growth and radiology suggestive of malignancy. Right hemicolectomy was done and specimen sent for histopathology.

Received right hemicolectomy specimen measuring 12 cms in length with attached appendix measures 4.8 cms. E/S-grey brown and narrowed at distal end. C/S- showed grey white thickened wall at distal surgical margin and 4cm away from it measuring 3x1 and 2x1 cms. On cutting open showed thick fibrosed areas along with thick wall and exudation was noted.(**Figure 1**) No cauliflower growth noted. Both the peripheral surgical margins are unremarkable. Four lymph nodes are noted near stricture area and in mesentery, larger measures 1.2x1 cms.C/S-showed grey white necrotic areas. Mesentery showed grey brown exudation.

Light microscopy studied shows large intestinal wall with large areas of necrosis filled with caseating granulomas with fibrosis and mononuclear cells infiltration throughout the layers.(**Figure 2**) The mucosal layer at stricturous areas showed effacement of architecture by large areas of caseation necrosis with dense and diffuse infiltration by neutrophils and lymphocytes with granulomas. (**Figure 3**) The

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subepithelium and muscular coat showed many aggregates of epithelioid cells forming well-formed granulomas along with many multinucleated Langhan's type of giant cells with peripheral mantle of lymphocytes.(**Figure 4**) Both the peripheral surgical margins showed mild diffuse mononuclear cells infiltration. Sections from all 4 lymph nodes and mesenteric fat showed caseating granulomas. Final HPE diagnosis was given as Caseating granulomatous inflammation s/o-Tuberculosis in Right hemicolectomy specimen.

Figure 1: Cut section of hemicolectomy specimen showed thick fibrosed areas along with thick stricture mass like lesion in wall

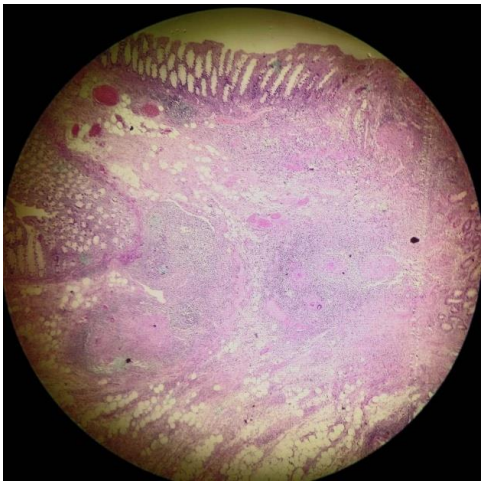

Figure 2: Light microscopy studied shows large intestinal wall with large areas of necrosis filled with caseating granulomas with fibrosis and mononuclear cells infiltration throughout the layers (H&E,x100).

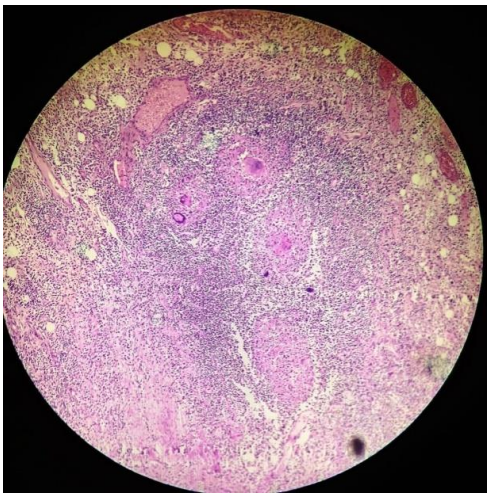

Figure 3: The mucosal layer at stricturous areas showed large areas of caseation necrosis with diffuse infiltration by lymphocytes with well-formed granulomas. (H&E,x400).

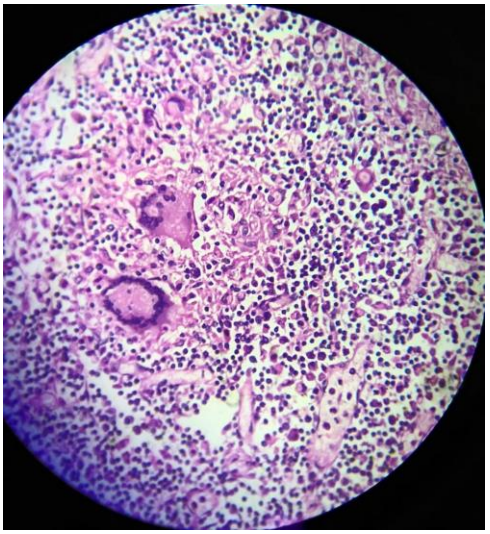

Figure 4: Subepithelium and muscular coat showed many aggregates of epithelioid cells forming well-formed granulomas along with many Langhan's type of giant cells (H&E, x400).

Regarding pathogenesis of ileo-cecal and colonic tuberculosis, few reasons were documented as abundant lymphoid tissue in both regions, neutral ph with longer fecal static and absorptive transport mechanisms.[4] Isolated colonic tuberculosis are itself rare constitutes only 3% of abdominal tuberculosis. [3,4] Bacteriological culture of biopsy material remains the gold standard for definitive diagnosis of intestinal tuberculosis but it requires 4 to 6 weeks long duration and lacks sensitivity and specificity in colonic tuberculosis. [3,4] PCR and Gene X-pert are newer methods to diagnose pulmonary TB now a days. But yet to prove sensitivity in abdominal TB.[3,4]

Due to above findings regarding diagnosis, histopathological examination remains the main stay of definitive diagnosis in intestinal TB and considered as gold standard. Drug therapy like AKT and surgery are the

treatment modalities in abdominal tuberculosis with complications. Most of the times, biopsy rules out unnecessary and extensive major surgeries in the initial phases of abdominal TB.

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Conflict of Interest

None.

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