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PRIMARY INTESTINAL T-CELL LYMPHOMA PRESENTING AS CAECAL PERFORATION: A CASE REPORT

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ABSTRACT

Primary colonic lymphomas are rare malignancies, accounting for less than 0.6% of large bowel cancers. Among these, T-cell lymphomas are exceedingly uncommon and are associated with aggressive clinical behavior and poor prognosis. We report a case of primary intestinal T-cell lymphoma presenting as caecal perforation in a 60-year-old female who presented with acute abdomen and peritonitis. Contrast-enhanced computed tomography revealed caecal wall thickening with a mass lesion. Emergency right hemicolectomy was performed. Gross examination showed an ulceroinfiltrative caecal growth with perforation. Histopathological examination revealed diffuse infiltration of the bowel wall by atypical lymphoid cells. Immunohistochemistry demonstrated tumor cells positive for CD3, CD4, BCL2 with a high Ki-67 proliferation index, and negative for CD20 and CD5, confirming the diagnosis of primary colonic T-cell lymphoma. This case highlights the aggressive nature of colonic T-cell lymphomas and emphasizes the importance of immunohistochemistry for accurate diagnosis.

INTRODUCTION

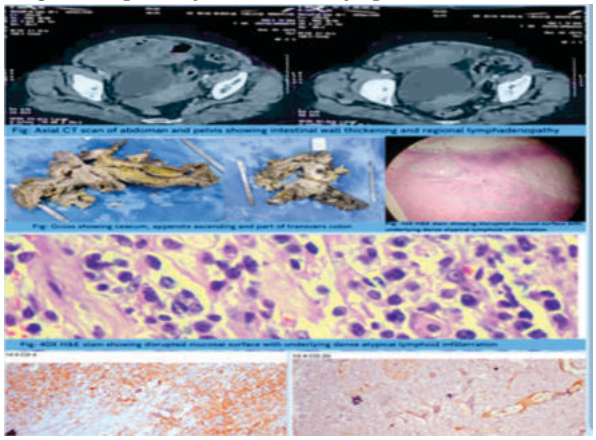
Primary lymphomas of the colon are rare, comprising less than 0.6% of all colorectal malignancies[1]. The caecum is the most commonly involved site due to its abundant lymphoid tissue[2]. Most colonic lymphomas are of B-cell origin, whereas T-cell lymphomas are distinctly uncommon and show aggressive behavior with poor outcomes[3]. These tumors often present late with nonspecific symptoms or acute complications such as obstruction or perforation, frequently mimicking colorectal carcinoma[4].

CASE DETAILS / MATERIALS & METHODS

A 60-year-old female presented with acute abdominal pain and features of peritonitis. Contrast-enhanced CT abdomen revealed circumferential caecal wall thickening with a mass lesion. Emergency right hemicolectomy was performed.

Gross examination revealed an ulceroinfiltrative growth in the caecum with an area of perforation. Representative sections were processed and stained with hematoxylin and eosin. Immunohistochemistry was performed using CD3, CD4, CD20, CD5, BCL2, and Ki-67 markers.

Microscopy showed diffuse infiltration of the bowel wall by atypical lymphoid cells with irregular nuclei. Tumor cells were positive for CD3, CD4, BCL2 and showed a high Ki-67 proliferation index, while CD20 and CD5 were negative. A diagnosis of primary colonic T-cell lymphoma was made.



DISCUSSION

Primary intestinal T-cell lymphomas are rare and aggressive neoplasms[3]. Colonic involvement is uncommon and frequently presents with acute complications such as perforation[4]. Histopathology combined with immunohistochemistry is essential for diagnosis[5]. Compared to B-cell lymphomas, T-cell lymphomas show poorer response to therapy and reduced survival[3]. CHOP-based chemotherapy remains the standard treatment, although prognosis remains guarded[3].

CONCLUSIONS

Primary colonic T-cell lymphoma is a rare aggressive malignancy that may mimic colorectal carcinoma and present with life-threatening complications. Accurate diagnosis relies on histopathological evaluation supported by immunohistochemistry. Awareness of this entity is crucial for early recognition and appropriate management.

REFERENCES:

[1] Ghimire P, Wu GY, Zhu L. Primary gastrointestinal lymphoma. World Journal of Gastroenterology.
[2] Dawson IM, Cornes JS, Morson BC. Primary malignant lymphoid tumours of the intestinal tract. British Journal of Surgery.
[3] d'Amore F, Gaulard P, Trümper L, et al. Peripheral T-cell lymphomas: clinical features and outcomes. Annals of Oncology.
[4] Isaacson PG, Du MQ. Gastrointestinal lymphoma: where morphology meets molecular biology. Journal of Pathology.
[5] WHO Classification of Tumours Editorial Board. WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues.