Creeping Fat

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A 63-year-old female had a history of easy fatiguability and was found to have anaemia. While being investigated for anaemia, a colonoscopy was performed which revealed ulceroproliferative growth at hepatic flexure with a biopsy suggestive of moderately differentiated adenocarcinoma. She underwent investigations for assessing fitness for surgery and staging of disease and was planned for a right extended hemicolectomy. Intraoperatively, creeping fat was observed around the terminal ileum.

Almost all the visceral organs of the body are lined by fatty tissue, called visceral adipose tissue. Mesenteric adipose tissue is an important component of visceral adipose tissue that is present in the mesenteric. In the setting of chronic inflammation of the gut, this fat creeps onto the gut wall in the form of finger-like projections and is known as creeping fat or wrapping fat. This finding was first described by Dr. Burrill B. Crohn as a unique feature of Crohn's disease[1]. Traditionally believed to be a protective factor against transmural inflammation and bacterial translocation, it has been demonstrated that creeping fat is a rich source of pro-inflammatory and pro-fibrotic cytokines, including TNF, IL-6, and IL-10 resulting in subsequent Th17 and Th1 responses[2]. Th1 response is a characteristic of Crohn's disease which predominates in the creeping fat[3]. Using creeping fat as an anatomical marker, surgeons can precisely assess the surgical margin for intestinal resection. According to a cohort study by Coffey et al., the surgical recurrence rate was significantly lower in the group that had intestinal resection with the mesentery removed than in the control group that had traditional ileocolic resection, in which the mesentery was divided flush with the intestine (2.9% vs. 40%)[4]. To determine whether creeping fat is beneficial or detrimental to Crohn's disease treatment, more randomized clinical trials are required.





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REFERENCES

1. Crohn, B.B., L. Ginzburg, and G.D. Oppenheimer, Regional ileitis; a pathologic and clinical entity. Am J Med, 1952. 13(5): p. 583-90.
2. Desreumaux, P., et al., Inflammatory alterations in mesenteric adipose tissue in Crohn's disease. Gastroenterology, 1999. 117(1): p. 73-81.
3. Li, N. and R.H. Shi, Updated review on immune factors in pathogenesis of Crohn's disease. World J Gastroenterol, 2018. 24(1): p. 15-22.
4. Coffey, C.J., et al., Inclusion of the Mesentery in Ileocolic Resection for Crohn's Disease is Associated With Reduced Surgical Recurrence. J Crohns Colitis, 2018. 12(10): p. 1139-1150.

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