

AB079. 190. Computed tomography measured mesenteric adiposity is associated with diverticulitis

Mary McCumiskey, Tara Connelly, Zoya Malik, Rishabh Sehgal, Dara Walsh, Colin Peirce, Gerard J. Byrnes, John Calvin Coffey

Department of Surgery, University Hospital Limerick, Dooradoyle, Limerick, Ireland

Background: The mesentery contains lymphatics, adipocytes and fibroblasts. Additionally, it secretes immunoregulatory molecular messengers including cytokines, chemokines and neuropeptides. Despite a high prevalence of diverticulosis in the general population, not all individuals with diverticulosis develop diverticulitis. Although various genetic and environmental factors have been suggested, it is unknown why a cohort develops acute inflammation/diverticulitis. Thus, we aim to determine the relationship between mesenteric adiposity and acute diverticulitis.

Methods: Abdominal and pelvic computed tomography (CT) examinations were individually examined for the presence of diverticulitis, diverticulosis or no

intraabdominal pathology (Controls). Subcutaneous and Mesenteric adiposity measurements were obtained at the L4–5 vertebral space using McKesson Study Share and Horos. SPSS was used for statistical evaluation. Values are provided with standard deviation.

Results: 115 diverticulitis (28 complicated, 87 uncomplicated) and 23 Control CTs were analysed. Compared to Controls, the entire and uncomplicated diverticulitis cohorts had a higher subcutaneous: left colon mesenteric adiposity ratio ($P=0.004$ and 0.003 , Table 1). On sub-analysis, complicated diverticulitis patients had a lower subcutaneous: mesenteric adiposity ratio when compared to the uncomplicated diverticulosis ($P=0.034$).

Conclusions: Diverticulitis patients have a decreased volume of left colonic mesenteric adiposity when compared to non-diverticulitis patients. Complicated diverticulitis patients have a decreased amount of overall mesenteric adiposity when compared to uncomplicated diverticulitis patients. This difference suggests an anatomical basis for an impaired ability to mount an immune response to pathogens. This may result in the inflammatory process of diverticulitis. Further studies are required to confirm this data.

Keywords: Diverticulitis; diverticulosis; mesenteric adiposity

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