

## Mesenteric Vasculitis Causing Perforated Diverticulitis Mimicking Abdominal Sepsis

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**Abstract :** Mesenteric vasculitis can often mimic abdominal sepsis in a postoperative setting leading to a predicament where steroids could improve mesenteric vasculitis whilst worsening abdominal sepsis. Here this study presents a unique and rare case of perforated sigmoid diverticulitis secondary to systemic vasculitis. A 68-year-old gentleman presented with perforated sigmoid diverticulitis requiring an emergency Hartmann's procedure. Early in his postoperative course, he had painful and asymmetrical neuropathy that, after a careful history and examination, revealed a patient with mono neuritis multiplex on a background history of longstanding rheumatoid arthritis. On day seven of his postoperative course, he had rising inflammatory markers and a CT abdomen and pelvis showing fluid around the mesentery. Whilst contamination from sigmoid perforation was somewhat congruent with these signs, a diagnosis of polyarteritis nodosa, a common cause of mononeuritis multiplex, is also possible, although involvement of the large bowel in polyarteritis nodosa is extremely rare. The histopathology from the initial Hartmann's procedure was re-examined, showing medium vessel disease vasculitis. Given his lack of fevers, absence of abdominal pain, and worsening neurology, he was given a provisional diagnosis of polyarteritis nodosa and was treated successfully, not on IV antibiotics but on steroids. Large bowel involvement of polyarteritis nodosa is extremely rare and this is the first case of polyarteritis nodosa causing perforated diverticulitis. The learning point here is to obtain a good clinical picture of a patient to identify mesenteric vasculitis as compared to abdominal sepsis as the treatment of one worsens the other.

**Keywords :** abdominal sepsis, diverticulitis, mesenteric vasculitis, polyarteritis nodosa

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