

## **The Early C-reactive Protein Trend Does Not Have a Role in Monitoring Acute Diverticulitis Progression**

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### **Abstract**

*Objective:* To investigate the variation of the values of the serum inflammation markers during the hospital stay of patients with acute diverticulitis and to evaluate the role of their initial trend in the early determination of the disease resistance to conservative measures.

*Patients and Methods:* The electronic records of patients presenting with acute diverticulitis at the Oulu University Hospital, Finland during a 2-year period starting from December 2006 were retrospectively reviewed. Acute diverticulitis that was successfully treated conservatively was graded as mild. Severe disease was considered when a percutaneous or surgical intervention was necessitated during the same hospitalization or within the first month. Comparisons of the means of continuous variables were performed using the paired samples T test.

*Results:* One hundred and thirty-nine patients with mild acute diverticulitis had available data concerning the initial trends of the inflammation markers. The C-reactive protein (CRP) mean value showed a paradoxical significant increase in uncomplicated cases whereas the WBC count declined within the first 24 hours of hospitalization. Thereafter the CRP levels showed a significant daily decrease below the initial levels for the remainder of the in-hospital duration. The inflammation markers' initial trends in patients with severe disease did not change significantly.

*Conclusion:* A rise in the CRP value during the first 24 hours of hospitalization should not be necessarily considered as a deterioration of the clinical status. This trend has no role in the early evaluation of the clinical progression of acute diverticulitis as it may mislead the clinician towards potential invasive overtreatment.

**Key words:** acute diverticulitis, C-reactive protein trends, disease monitoring, clinical practice