



OPTIMIZING MANAGEMENT USING CRP, FECAL CALPROTECTIN AND FERRITIN

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Summary

Clinical presentation at diagnosis and the disease course of Crohn's disease (CD) and ulcerative colitis (UC) are heterogeneous and variable over time. The majority of patients with CD will develop at least one stricturing or perforating complication requiring surgery, whereas a significant proportion of patients with UC will ultimately require colectomy during follow-up. New data support a change in long-term outcomes associated with the advent of biologicals, objective patient monitoring, and tailored therapy. Therefore it is important to identify patients at risk for disease progression as early as possible to allow close follow-up. Much emphasis has been placed in recent years on determining important predictive factors. C-reactive protein (CRP) and, more recently, fecal calprotectin have been routinely used in the follow-up of patients with inflammatory bowel disease. Both were shown to parallel endoscopic or histologic activity. As well, elevated levels in patients with quiescent disease have been shown to predict short-term relapses in both CD and UC. Although CD is associated with a stronger CRP response, approximately 30% of patients never mount a CRP response. Fecal calprotectin is more accurate in ileocolonic and colonic CD than in ileal-only disease. A clear advantage is the stability of the marker, making it ideal for use in patients with limited mobility and those who are geographically distant. Finally, ferritin may be used as a marker of iron deficiency anemia. Levels of this acute-phase protein may be affected by active inflammation. Early results from hypothesis-driven randomized controlled trials (such as Randomized Evaluation of an Algorithm for Crohn's Treatment [REACT]) confirm superior long-term outcomes in patients randomized to tight monitoring-based optimized therapy. In summary, a comprehensive evaluation of factors, including clinical and endoscopic presentation and fecal, serological, and routine laboratory tests is recommended together with a personalized follow-up by selecting the right marker or combination of markers for a given patient to optimize long-term outcomes.

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