

IDENTIFICATION OF METABOLIC PREDICTIVE BIOMARKERS OF RESPONSE TO INFLAMMATORY BOWEL DISEASE TREATMENT

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Poster

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A prospective multicenter study of 150 IBD patients identified 55 baseline serum and urinary metabolic biomarkers that predict endoscopic response to biologic and JAK-inhibitor therapies at 14 weeks, with AUC values ranging from 0.78 to 0.98.

KEY POINTS

- Metabolomic analysis using nuclear magnetic resonance identified 55 potential predictive biomarkers with significantly altered levels ($p < 0.05$) in baseline samples of responders versus non-responders, with 44 being drug-specific and none shared between serum and urine
- The highest predictive accuracy was observed for UC tofacitinib (AUC 0.98, 0.96, 0.91) and CD ustekinumab (AUC 0.96, 0.95, 0.94), while CD anti-TNF showed lower values (AUC 0.83, 0.81, 0.78)
- Common biological pathways associated with treatment response included short-chain fatty acid metabolism, the citrate cycle, and metabolism of alanine, aspartate, glutamate, and arginine
- The authors state that further validation is needed before these biomarkers can be used to guide personalized therapy selection in IBD patients

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