Crohn’s disease (CD) presents a formidable challenge as a chronic inflammatory condition. This systematic review aimed to comprehensively assess upadacitinib, a novel Janus kinase (JAK) inhibitor, regarding its efficacy, safety, and mechanistic insights in CD treatment.

A thorough search of electronic databases identified studies investigating upadacitinib's impact on CD patients. Study characteristics, efficacy outcomes (clinical remission and endoscopic response), safety profiles, and mechanistic insights were extracted and qualitatively synthesized.

Methodological quality was assessed using established tools. The synthesis of three studies consistently demonstrated improvements in clinical remission rates and endoscopic outcomes in upadacitinib-treated patients. Adverse events, such as herpes zoster, intestinal perforation, non-melanoma skin cancer, adjudicated cardiovascular events, and anemia, were reported, necessitating vigilant safety monitoring.

Upadacitinib emerges as a promising therapeutic option for CD, supported by its observed clinical benefits and mechanistic implications. However, safety concerns underscore the importance of careful patient selection. These findings contribute to the ongoing discussion surrounding personalized treatment approaches for CD, emphasizing the need for further research to confirm its enduring efficacy and safety.