



Tofacitinib- the Turning Point in the Management of Ulcerative Colitis

Zain Majid*

Department of Hepatogastroenterology, Sindh Institute of Urology and Transplantation, SIUT, Karachi, Pakistan

***Corresponding Author:** Zain Majid, Department of Hepatogastroenterology, Sindh Institute of Urology and Transplantation, SIUT, Karachi, Pakistan.

Received: December 26, 2023

Published: January 01, 2024

© All rights are reserved by **Zain Majid**.

Ulcerative colitis (UC) is a chronic disease of the large bowel that affects all age groups [1].

The current set of treatment for UC involves steroids, immunomodulators, biologics and Janus kinase inhibitors, namely tofacitinib [1].

Tofacitinib, a second generation Janus kinase inhibitor, inhibits the JAK1 enzyme. It had acquired FDA approval for a variety of indications, including ulcerative colitis as well [2].

The introduction of tofacitinib has revolutionized the management of UC, due to its shorter half-life and a higher bioavailability which leads to a faster action.

A couple of clinical trials parallel its efficacy in moderate to severe UC to that of vedolizumab, an anti-integrin inhibitor and found it to have similar rates of remission.

It acts on the JAK stat pathway inhibiting multiple cytokines at the same time.1 and is rapidly absorbed after oral intake but has a short half-life [1].

Approved by the FDA in 2018 [3], it is mainly used for those having moderate to severe ulcerative colitis in whom the disease process has either deteriorated or in individuals who have not yet responded to conventional treatment options including monoclonal antibody [4].

Tofacitinib's dose in the induction phase is 10mg twice daily, which is given for a period of 8 weeks. However, the treatment duration may be extended for another 8 weeks if remission cannot be reached [4].

However, its effectiveness in the less severe disease spectrum is not yet known.

Bibliography

1. D'Amico F, *et al.* "Tofacitinib in the treatment of ulcerative colitis: efficacy and safety from clinical trials to real-world experience. *Therapeutic Advances in Gastroenterology* 12 (2019): 1756284819848631.
2. Padda IS, *et al.* "Tofacitinib". In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing (2023).
3. Palasik BN and Wang H. "Tofacitinib, the First Oral Janus Kinase Inhibitor Approved for Adult Ulcerative Colitis". *Journal of Pharmacy Practice* 34.6 (2021): 913-921.
4. Magro F and Estevinho MM. "Is tofacitinib a game-changing drug for ulcerative colitis? *United European Gastroenterology Journal* 8.7 (2020):755-763.