


# Saroglitazar – A Potential Therapeutic Option in Treating NASH? [Letter]

Syed Hasan Shuja 

Farea Eqbal

Hafsa Rehman

Dow Medical College, Karachi, Sindh,  
Pakistan

## Dear editor

We read the extremely informative study “Non-Alcoholic Steatohepatitis (NASH) – A Review of a Crowded Clinical Landscape, Driven by a Complex Disease” published by Fraile et al<sup>1</sup> in the prestigious journal “Drug Design, Development and Therapy”. We would like to appreciate the remarkable work done by the authors on this thorough review, congratulate them on its successful publication, and make further contributions.

This review discussed the potential mono-therapeutic options for Non-alcoholic steatohepatitis (NASH) including drugs such as Saroglitazar (Zybus Cadila), Obeticholic acid (Intercept Pharmaceuticals), Cenicriviroc (Allergan), Aramchol (Galmed Pharmaceuticals), Resmetirom (Madrigal Pharmaceuticals), Dapagliflozin, and Semaglutide (Novo Nordisk). The review further discusses the role of anti-diabetic drugs, co-therapies, and antibodies in the treatment of NASH.<sup>1</sup>

Even though this review provided exhaustive details in terms of the potential therapeutic options for NASH, we believe that the review provides incomplete vital details in regards to the clinical trial conducted in the United States to demonstrate the efficacy of Saroglitazar.<sup>2</sup>

Fraile et al<sup>1</sup> in this review explained Saroglitazar Magnesium (Lipaglyn) has been approved in India for the treatment of type 2 diabetes (T2D) and dyslipidemia. Furthermore, in 2020 Saroglitazar qualified for NASH treatment in India as a result of the promising results of the Phase 3 clinical trial, EVIDENCES II, conducted on Indian NASH patients. In this trial, the histologic improvements of NASH were assessed by liver biopsy, a gold standard in assessing the prognosis of chronic liver diseases. However, a Phase 2 trial conducted in the United States<sup>2</sup> included NASH patients on the basis of elevated ALT levels, although no definitive ALT levels can be used to predict NASH<sup>3</sup> and normal ALT levels are found in approximately 25% of these patients.<sup>4</sup> Hence, saroglitazar cannot be recommended only on the basis of a particular subset of patients with elevated ALT without histological endpoints.

Moreover, in the study conducted by Gawrieh et al, the efficacy of Saroglitazar was demonstrated by reporting a significant decrease in ALT levels after 16 weeks. But, this reduction in ALT was not associated with a proportional decrease in Liver Fat Content or improvement in insulin resistance (as assessed by the HOMA-IR index).<sup>4</sup>

To help understand its role better it is important to adopt additional ingenious placebo-controlled trials in biopsy-proven NASH with histological endpoints.

Correspondence: Syed Hasan Shuja  
Dow Medical College, Dow University of  
Health Sciences, Baba-e-Urdu Road,  
Karachi, 74200, Pakistan  
Tel +923200250770  
Email hasanshuja6@gmail.com

## Disclosure

The authors report no conflicts of interest in this communication.

## References

1. Fraile JM, Palliyil S, Barelle C, Porter AJ, Kovaleva M. Non-alcoholic steatohepatitis (NASH)– A review of a crowded clinical landscape, driven by a complex disease. *Drug Des Devel Ther.* 2021;15:3997–4009. doi:10.2147/DDDT.S315724
2. Gawrieh S, Nouredin M, Loo N, et al. Saroglitazar, a PPAR- $\alpha/\gamma$  agonist, for treatment of NAFLD: a Randomized Controlled Double-Blind Phase 2 Trial. *Hepatology.* 2021. doi:10.1002/HEP.31843
3. Verma S, Jensen D, Hart J, Mohanty SR. Predictive value of ALT levels for non-alcoholic steatohepatitis (NASH) and advanced fibrosis in non-alcoholic fatty liver disease (NAFLD). *Liver Int.* 2013;33(9):1398–1405. doi:10.1111/LIV.12226
4. Kumar K, Kulkarni A, Jagdish RK. Letter to the Editor: saroglitazar for treatment of NAFLD and NASH. *Hepatology.* 2021. doi:10.1002/HEP.32094

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Drug Design, Development and Therapy 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Drug Design, Development and Therapy editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

### Drug Design, Development and Therapy

Dovepress

### Publish your work in this journal

Drug Design, Development and Therapy is an international, peer-reviewed open-access journal that spans the spectrum of drug design and development through to clinical applications. Clinical outcomes, patient safety, and programs for the development and effective, safe, and sustained use of medicines are a feature of the journal, which has also

been accepted for indexing on PubMed Central. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/drug-design-development-and-therapy-journal>

<https://doi.org/10.2147/DDDT.S341223>