

# Letter to the Editor: Potential of Activated Growth Factor From Platelets in Diabetic Retinopathy Treatment [Letter]

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## Dear editor

I would like to commend Amin et al for their insightful study on the potential role of activated growth factor (AGF) from platelets in the treatment of diabetic retinopathy (DR).<sup>1</sup> Their research highlights the ability of TGF- $\beta$ -enriched AGF to reduce oxidative stress and inflammation, key contributors to DR progression. The study demonstrated that AGF administration significantly lowered markers such as ROS, TNF- $\alpha$ , IL-1 $\beta$ , and VEGF, while enhancing SOD activity in diabetic rat models. Importantly, the observed reduction in retinal artery dilation and inflammatory cytokines suggests that AGF could be a promising therapeutic avenue in preserving retinal vascular integrity in diabetic patients.

Despite these promising findings, the study has some limitations that warrant further investigation. First, while the animal model provides a controlled environment, its translatability to human DR requires careful validation through clinical trials. The potential long-term effects and safety profile of AGF remain unclear, especially regarding its systemic interactions beyond the retina. Additionally, the study did not assess the durability of AGF-induced effects, raising questions about the optimal frequency and dosage needed for sustained therapeutic benefits.

To address these gaps, future research should explore human-based clinical trials assessing AGF's efficacy, safety, and potential adverse effects.<sup>2</sup> Moreover, comparative studies with existing DR treatments (such as anti-VEGF therapies) could establish AGF's place in the treatment hierarchy.<sup>3</sup> Investigating novel delivery methods, such as intravitreal injections or sustained-release formulations, may enhance the clinical applicability of AGF while minimizing potential risks.<sup>4</sup> If validated in human subjects, AGF could revolutionize DR management by targeting both oxidative stress and inflammation, offering a dual-action approach to a condition with limited curative options.<sup>5</sup>

## Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work, the author(s) utilized [QuillBot and SciSpace] to refine the language without altering the scientific substance of the manuscript.

## Disclosure

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this communication.

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