Pathophysiology and pharmacological targets of VEGF in diabetic macular edema.

Fogli S, Mogavero S, Egan CG, Del Re M, Danesi R (2016) Pathophysiology and pharmacological targets of VEGF in diabetic macular edema. *Pharmacol Res* 103, 149-157.

Abstract

Diabetic macular edema (DME) is a serious condition that can cause blindness in diabetic patients suffering from diabetic retinopathy (DR). Although vascular endothelial growth factor (VEGF) is known to play a role in the development of DME, the pathological processes leading to the onset of this disease are highly complex and the exact sequence in which they occur is still not completely understood. Angiogenesis and inflammation have been shown to be involved in the pathogenesis of this disease. However, it still remains to be clarified whether angiogenesis following VEGF over-expression is a cause or a consequence of inflammation. Here, we provide an overview of the current data available in the literature focusing on VEGF, angiogenesis, inflammation, DR and DME. Our analysis suggests that angiogenesis and inflammation act interdependently during the development of DME. VEGF is a critical player in the molecular crosstalk occurring between these two processes, reinforcing the use of anti-VEGF agents for the treatment of DME.

Leibniz-HKI-Autor*innen

Selene Mogavero

Details

Identifier

doi: 10.1016/j.phrs.2015.11.003

PMID: 26607863