Rethinking Pioglitazone as a Cardioprotective Agent: A New Perspective on an Overlooked Drug

Nesti L, et al. Cardiovasc Diabetol. 2021 May 18; 20(1):109.

- Pioglitazone is consistently associated with reduced risk of myocardial infarction and ischemic stroke both in primary and secondary prevention.
- Pioglitazone reduces atherosclerosis progression, in-stent restenosis after coronary stent implantation and progression rate from persistent to permanent atrial fibrillation.
- Pioglitazone has direct beneficial effects on cardiomyocytes electrophysiology, energetic metabolism, ischemia-reperfusion injury, cardiac remodeling, neurohormonal activation, and pulmonary circulation and biventricular systo-diastolic functions.
- Pioglitazone may acts by anti-remodeling properties (endothelium protective, inflammation-modulating, anti-proliferative and anti-fibrotic), metabolic (adipose tissue metabolism, increased HDL cholesterol), and neurohormonal (RAAS, sympathetic nervous system, and adiponectin) modulation of the CVS.

With appropriate prescription and titration, pioglitazone remains a useful tool in the arsenal of the clinical diabetologist.