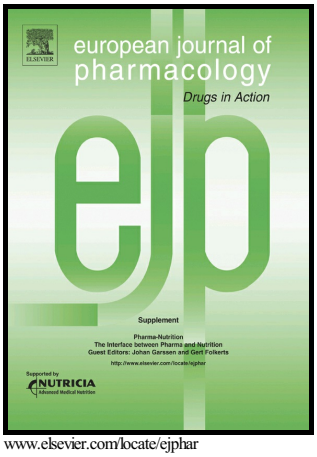

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PARP-1 inhibition alleviates diabetic cardiac complications in experimental animals[☆]

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Abstract

Cardiovascular complications are the major causes of mortality among diabetic population. Poly(ADP-ribose) polymerase-1 enzyme (PARP-1) is activated by oxidative stress leading to cellular damage. We investigated the implication of PARP-1 in diabetic cardiac complications. Type 2 diabetes was induced in rats by high fructose-high fat diet and low streptozotocin dose. PARP inhibitor 4-aminobenzamide (4-AB) was administered daily for ten weeks after diabetes induction. At the end of study, surface ECG, blood pressure and vascular reactivity were studied. PARP-1 activity, reduced glutathione (GSH) and nitrite contents were assessed in heart muscle. Fasting glucose, fructosamine, insulin, and tumor necrosis factor alpha (TNF-α) levels were measured in serum. Finally, histological

[☆] All authors take responsibility for all aspects of the reliability and freedom from bias of the data presented and their discussed interpretation"