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## Clinical and pharmacological basis for the use of Aliskiren in diabetes mellitus patients with peripheral neuropathy

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**Statement of the Problem:** Diabetes mellitus is a challenging problem in modern medicine. Over 347 million people worldwide suffer from diabetes. Polyneuropathy is the most common complication of diabetes mellitus (60-70% of patients). Its treatment still remains unresolved. The optimal therapy involves: Blood glucose level control, anticonvulsants, antidepressants and opioid administration, though it does not change pathogenic pattern. It has been identified that Tumor Necrosis Factor alpha (TNF $\alpha$ ) and Renin-Angiotensin Aldosteron System (RAAS) play a significant role in type-1 and type-2 diabetes development. The data collected in the present-day scientific literature indicate the essential pathogenic role of TNF $\alpha$  in the development of diabetic neuropathy (DNP). In our study we use Aliskiren (renin inhibitor) to study modulatory impact on TNF $\alpha$ .

**Methodology & Theoretical Orientation:** The study population consists of 60 individuals diagnosed with diabetes mellitus (DM) with DNP. The enrolled subjects are divided into two main groups: Group-1 with type-1 and type-2 diabetes mellitus, complicated by DNP to take Aliskiren and group-2 with the same pathology, proceeding with the treatment without Aliskiren but given Telmisartan (ARB), for certainty of Aliskiren efficacy. At the start of the trial and on completion of the six weeks period TNFa level and C-peptide (for T2DM) will be determined.

**Findings:** Aliskiren improves conditions of T2DM patients with DNP. Namely, the symptoms of neuropathy are reduced, the blood TNFa level is reduced and C-peptide level is increased.

**Conclusion & Significance:** Our results confirm hypothesis that TNFa may play a substantial role in the development and progression of type-2 diabetes mellitus as well as in pathogenesis of diabetic neuropathy. Aliskiren has modulatory impact on TNFa, so we will have results for clinical and pharmacological analysis of Aliskiren application in diabetic neuropathy.

## Biography

Anna Archvadze has over 8 years of experience as a Medical Doctor. Over 15 years experience as a Trainer/Teacher of Medical Sciences. Over 11 years experience in health and Social project/program development, execution, monitoring and completion, Over 7 years experience in International Project Management working for the World Bank Financed Heath projects, Over 5 years experience in an assessment of training needs; design and elaboration of training programs, provision of trainings for emergency care medical staff and for healthcare services providers, Over 10 years of experience in supervision of the contract performance with medical institutions, pharmaceutical firms, governmental and non-governmental organizations.

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