

4th Annual Congress on

DRUG DISCOVERY & DESIGNING

July 03-04, 2017 Bangkok, Thailand

The risk of Nitroglycerin drug administration in chronic diabetic patients

Manuela Stoicescu

University of Oradea, Romania

Objectives: The most important objective of this presentation is to attract attention on the condition that the Nitroglycerin drug administration could be dangerous in chronic diabetic patients. The most common side effects of Nitroglycerin drug administration are arterial hypotension and headache. But, in chronic diabetics patients it can cause an unexpected phenomenon.

Case Report: This is a case study of a 64 years old patient, suffering with type-2 diabetes mellitus from 10 years, in two prizes of NPH insulin with good metabolic control of glycemia=102 mg/dl and glycosylated hemoglobin=4.8%, visited the consultation with constrictive chest pain. The value of blood pressure was high: BP=220/120 mmHg, HR=88 beats per min and rhythmic without added sounds or murmur heart. The EKG in crises of chest pain showed: Sinus rhythm, HR=88 beats/min, ischemic-lesion changes in anterior leads V1-V6 and for this reason and because the value of blood pressure permitted he was administrated with one drug of Nitroglycerin 0.5 mg under the tongue. Immediately, in a few minutes, the patient became pale, sweating and had tendency to faint but he was put on bed. Blood pressure became suddenly, in a few minutes (2-3 minutes) extremely low (BP=80/60 mmHg) and the patient needed an immediate administration of saline solution 500 ml i.v. with an ampoule of Dopamine in perfusion during which the blood pressure came to normal range 140/80 mmHg and in this moment the Dopamine administration was stopped and the patient was rescued. The most important question in this moment is how it is possible to decrease the value of severe blood pressure from 220/120 mmHg to 80/60 mmHg in a few minutes because here in this case one Nitroglycerin drug administered (0.5 mg) under the tongue decreased the value of blood pressure drastically but normally it won't decrease the valued to such lower levels. What are the factors that contributed to this situation? How is it possible to prevent a similar situation in the future? Represent the diabetes mellitus a risk factor for this unexpected situation?

Results & Discussions: This unexpected situation appeared because of vegetative neuropathy in patients with diabetes mellitus. Because of this reason, this category of patients also experiences condition called orthostatic hypotension. Because of autonomic neuropathy (vegetative neuropathy) in patients with chronic diabetes mellitus an excessive vasodilatation of blood vessels and unexpected decrease in blood pressure appears and severe arterial hypotension in a short period with risk of faint or syncope develops.

Conclusion: In this category of patients with chronic diabetes mellitus, because of vegetative neuropathy, we must avoid the administration of Nitroglycerin under the tongue. In case of sudden decrease of high blood pressure patient can be given anti-analgesic medication i.v for chest pain, before being made an angiography.

Biography

Manuela Stoicescu is a Consultant Internal Medicine Physician, completed her PhD in Internal Medicine. She is an Assistant Professor of University of Oradea, Faculty of Medicine and Pharmacy, Medical Disciplines Department, Romania. She is a Committee Organizing Member at many international conferences, Editorial Board Member of two ISSN prestigious journals in USA. She has published more than 20 articles in prestigious ISSN journals in USA, five books: Two books for students, two books on Amazon at International Editor-LAP Lambert Publishing Academic House in Germany (*Sudden Cardiac Death in the Young* and *Side Effects of Antiviral Hepatitis Treatment*), one monograph (*High blood pressure in the young a ignored problem!*) and a book (*Tumor Markers in Hypertensive Young Patients*).

manuela_stoicescu@yahoo.com

Notes: