



3. COMBINATION OF BETA-BLOCKERS WITH ACE INHIBITORS IN THE TREATMENT OF HYPERTENSION IN PATIENTS WITH CARDIAC COMORBIDITIES

Author: Tielenco Teodorina

Scientific advisor: Catcov Carolina, MD, Assistant Professor, Department of Pharmacology and Clinical Pharmacology, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. Approximately 1.28 billion people worldwide are estimated to have hypertension, and it can either promote or accompany other cardiac comorbidities. The combination of beta-blockers with angiotensin-converting enzyme inhibitors in the management of arterial hypertension in patients with various cardiac comorbidities brings benefits by reducing the influence of the sympathetic nervous system and the renin-angiotensin-aldosterone system (RAAS).

Aim of study. Determining the benefits of combining antihypertensive medications in patients with cardiac comorbidities.

Methods and materials. In a retrospective study, analyzing 24 patient records from the CMH "Arhanghel Mihail", the groups of antihypertensive medications were identified, along with their combination in patients with cardiac comorbidities.

Results. In terms of gender, we obtained that 70% were female and 30% male, with ages ranging from 55 to 82 years, average 69.9 ± 2.3 . All patients upon admission presented elevated blood pressure values, as follows: 7 with a blood pressure of 180 mmHg, 12 - 190 mmHg, 3 with 200 mmHg, and 2 patients with 220 mmHg; as well as other cardiac comorbidities: 19 with angina pectoris (AP), 12 with heart failure (HF), 12 with atrial fibrillation, and 4 with supraventricular tachycardia. For the treatment of patients' conditions, ACEIs were used, including Ramipril 5mg in the evening for 1 patient, Ramipril in combination with a beta-blocker Bisoprolol 2.5 mg for 8 patients, Lisinopril 10 mg associated with Bisoprolol 2.5 mg for 13 patients, and Bisoprolol 2.5 mg for 2 patients. Only 2 patients experienced a hypertensive crisis on the 6th day of treatment, one receiving only a beta-blocker and one using the combination of ramipril with bisoprolol. After 10 days of treatment, the condition of the patients (24) at discharge improved, with BP values lowered to 140 mmHg (70.8%), 135 mmHg (16.6%), and 120 mmHg (12.5%), and no dyspnea or peripheral edema.

Conclusion. The combination of beta-blockers and ACEIs represents a promising therapeutic strategy in the treatment of arterial hypertension in patients with cardiac comorbidities. One blocks sympathetic influences, the other the RAAS—thus reducing cardiovascular risk and the consequences of the disease. Current data highlight the synergistic benefits of these two classes of medications. In addition to their antihypertensive actions, beta-blockers are used to manage arrhythmias, AP and HF, while ACE inhibitors ensure cardioprotection in patients with acute coronary syndromes and treat congestive heart failure.