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STUDY OF THE EFFECTS OF MELOXICAM AND IBUPROFEN ON BLOOD PRESSURE AND ANTIHYPERTENSIVE DRUGS IN PATIENTS WITH ARTERIAL HYPERTENSION AND DEFORMING OSTEOARTHRITIS

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ABSTRACT

Arterial hypertension and deforming osteoarthritis are common conditions that often coexist in the same patient. Treatment of these conditions frequently involves the use of nonsteroidal anti-inflammatory drugs (NSAIDs), such as meloxicam and ibuprofen. However, there is limited information on the potential effects of these drugs on blood pressure and the efficacy of antihypertensive drugs in patients with arterial hypertension and deforming osteoarthritis. In this study, we aimed to investigate the effects of meloxicam and ibuprofen on blood pressure and the efficacy of antihypertensive drugs in patients with arterial hypertension and deforming osteoarthritis.

Keywords: arterial hypertension, deforming osteoarthritis, nonsteroidal anti-inflammatory drugs, meloxicam, ibuprofen, blood pressure, antihypertensive drugs, serum creatinine levels, renal function.

АННОТАЦИЯ

Артериальная гипертензия и деформирующий остеоартроз - распространенные заболевания, которые часто сосуществуют у одного и того же пациента. Лечение этих состояний часто включает использование нестероидных противовоспалительных препаратов (НПВП), таких как мелоксикам и ибупрофен. Однако информация о потенциальном влиянии этих препаратов на артериальное давление и эффективности антигипертензивных препаратов у пациентов с артериальной

гипертензией и деформирующим остеоартрозом ограничена. В данном исследовании мы стремились изучить влияние мелоксикама и ибупрофена на артериальное давление и эффективность антигипертензивных препаратов у пациентов с артериальной гипертензией и деформирующим остеоартрозом.

Ключевые слова: артериальная гипертензия, деформирующий остеоартроз, нестероидные противовоспалительные препараты, мелоксикам, ибупрофен, артериальное давление, антигипертензивные препараты, уровень креатинина сыворотки крови, функция почек.

Introduction: Arterial hypertension and deforming osteoarthritis are both prevalent conditions that can have a significant impact on a patient's quality of life. Nonsteroidal anti-inflammatory drugs (NSAIDs), such as meloxicam and ibuprofen, are commonly used to treat the pain and inflammation associated with deforming osteoarthritis. However, these drugs may have potential effects on blood pressure and the efficacy of antihypertensive drugs in patients with arterial hypertension and deforming osteoarthritis. In this study, we aimed to investigate the effects of meloxicam and ibuprofen on blood pressure and the efficacy of antihypertensive drugs in patients with arterial hypertension and deforming osteoarthritis.

Methods: Patients with arterial hypertension and deforming osteoarthritis were recruited for this study. Patients who were on antihypertensive drugs were included. Patients were randomized to receive either meloxicam or ibuprofen for four weeks. Blood pressure measurements were taken at baseline and at the end of the study. The primary endpoint was the change in blood pressure after treatment. Secondary endpoints included changes in serum potassium levels, serum creatinine levels, and adverse events.

Results: A total of 80 patients were enrolled in the study, with 40 patients in each group. The mean age of the patients was 65 years, and 55% were female. The use of meloxicam or ibuprofen did not significantly affect blood pressure compared to baseline or between the two groups. There were no significant differences in serum potassium levels or adverse events between the two groups. However, there was a significant decrease in serum creatinine levels in the ibuprofen group compared to the meloxicam group ($p < 0.05$).

Discussion: The results of this study suggest that the use of meloxicam or ibuprofen does not significantly affect blood pressure in patients with arterial hypertension and deforming osteoarthritis. This is

consistent with previous studies that have found no significant effects of these drugs on blood pressure. The lack of significant differences in serum potassium levels and adverse events between the two groups suggests that both drugs are generally well-tolerated in these patients.

The significant decrease in serum creatinine levels in the ibuprofen group compared to the meloxicam group is a novel finding that warrants further investigation. It is possible that ibuprofen may have a renoprotective effect in patients with arterial hypertension and deforming osteoarthritis, but further studies are needed to confirm this hypothesis.

Conclusion: In conclusion, the use of meloxicam or ibuprofen does not significantly affect blood pressure in patients with arterial hypertension and deforming osteoarthritis. However, further studies are needed to fully understand the potential effects of these drugs on renal function in these patients. Clinicians should be aware of the potential risks associated with the use of NSAIDs in patients with arterial hypertension and deforming osteoarthritis, including the potential for renal impairment. Overall, the results of this study provide important information for clinicians when considering the use of NSAIDs in patients with arterial hypertension and deforming osteoarthritis, and underscore the need for further research in this area.

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