

PRÍLOHA / SUPPLEMENT

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carrying the G allele was confirmed only for NT-proBNP ($p=0.041$).

Conclusion: These preliminary findings highlight that the PCSK9 variant rs562556 may contribute to CMP risk and progression independently of lipid pathways. Given the study's design and limitations, our results should be exploratory and may serve as a basis for hypothesis generation in larger studies.

Key words: PCSK9 gene. Cardiomyopathy. Risk. Pilot study

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IMPLEMENTATION OF AN HPLC METHOD IN THE ANALYSIS OF DEXKETOPROFEN SUBSTANCE

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Background: Dexketoprofen is a propionic acid derivative and a (S(+)-isomer) of ketoprofen. The State Pharmacopoeia of Ukraine (SPU) and the European Pharmacopoeia (Eur. Ph.) regulate the analysis of ketoprofen using liquid chromatography.

Objective: The aim of this study was to implement an alternative pharmacopoeial method LC - HPLC for the analysis of dexketoprofen as an alternative pharmacopoeial method with improved identification capability.

Samples and Methods: Dexketoprofen samples (0.5 mg/mL in the mobile phase); standard samples of DPU: dexketoprofen (0.0025 mg/mL in the mobile phase), system suitability solution - dexketoprofen (0.5 mg/mL in the mobile phase); HPLC, Agilent 1260, UV detector, column ZORBAX Eclipse Plus C18 (50°C); data acquisition and evaluation were carried out using OpenLab CDS software.

Results: The following chromatography conditions and composition of solutions for the study are proposed: flow – 1.2 mL/min, detection – UV at 254 nm, injection volume – 25 µL, chromatography time 40 min; mobile phase: acetonitrile R - buffer solution R (40:60, V/V), buffer solution: water R - phosphoric acid AR (1000:1, V/V), solutions of the substances were prepared in the mobile phase. Dexketoprofen was identified based on retention time. In addition, six unspecified impurities were detected, including Impurity F ($R_t = 2.396$ min). The decomposition products of specified impurities A and B were detected (benzoic acid, aceto- and acetomethylphenone, diphenylketone and its 3-substituted derivatives), some of which are toxic compounds.

Conclusion: The HPLC method can be recommended for the analysis of dexketoprofen as an alternative method.

Key words: Dexketoprofen. Accompanying Impurities. HPLC. Toxic substances