FFT-P4 POVEZANOST GENSKIH POLIMORFIZAMA TRANSPORTERA LEKOVA SA KONTROLOM UKUPNOG I LDL-HOLESTEROLA KOD PACIJENATA NA TERAPIJI ROSUVASTATINOM I ATORVASTATINOM

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Varijabilnost terapijskog odgovora na statine ograničava postizanje optimalne kontrole lipidnog statusa pri standardnom doziranju. Ispitivanje genskih polimorfizama transportera može pomoći u individualizaciji terapije rosuvastatinom i atorvastatinom kod pacijenata sa dislipidemijom.

Cilj rada bio je ispitivanje distribucije genskih polimorfizama za transportere lekova ABCG2 421C>A i SLCO1B1 521T>C i njihovog uticaja na kontrolu ukupnog holesterola (TC, engl. *total cholesterol*) i LDL-holesterola (LDL-C, engl. *low-density lipoprotein cholesterol*) kod pacijenata na rosuvastatinu i atorvastatinu.

U studiju su uključena 103 pacijenta na terapiji rosuvastatinom i 96 pacijenata na terapiji atorvastatinom. Primenjena je logistička regresiona analiza za ispitivanje povezanosti genskih polimorfizama i kontrole TC (kontrolisan≤5,2 mmol/L) i LDL-C (kontrolisan<2,6 mmol/L). Nezavisne varijable su bile ispitivani genski polimorfizmi, pol, starost i srednje/visoko intenzivan režim odgovarajućeg statina.

Kod pacijenata na terapiji rosuvastatinom, univarijantna analiza pokazala je da su nosioci A alela ABCG2 421C>A genskog polimorfizma (OR=0,307; 95%CI 0,095–0,990; p=0,048) i stariji pacijenti (OR=0,934; 95%CI 0,895–0,974; p=0,002) imali bolju kontrolu TC. U multivarijantnoj analizi značaj ABCG2 polimorfizma je nestao, dok je starost ostala nezavisno povezana sa kontrolom TC. Kod pacijenata na atorvastatinu, ABCG2 polimorfizam bio je jedini značajan prediktor kontrole TC (OR=0,103; 95%CI 0,013–0,827; p=0,032). Nije utvrđena značajna povezanost ispitivanih polimorfizama sa statusom kontrole LDL-C.

Genski polimorfizam ABCG2 421C>A povezan je sa boljom kontrolom TC kod pacijenata na terapiji statinima. Određivanje koncentracije statina u plazmi, uz farmakogenetičke podatke, omogućilo bi dalja istraživanja optimizacije terapije dislipidemije.

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FFT-P4 ASSOCIATION OF DRUG TRANSPORTER GENE POLYMORPHISMS WITH TOTAL AND LDL CHOLESTEROL CONTROL IN PATIENTS RECEIVING ROSUVASTATIN AND ATORVASTATIN THERAPY

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Variability in response to statin therapy limits the achievement of optimal lipid control with standard dosing. Investigation of drug transporter gene polymorphisms may support the individualization of rosuvastatin and atorvastatin therapy in patients with dyslipidemia.

This study aimed to evaluate the distribution of the drug transporter gene polymorphisms ABCG2 421C>A and SLCO1B1 521T>C, and their association with total cholesterol (TC) and low-density lipoprotein cholesterol (LDL-C) control in patients receiving rosuvastatin or atorvastatin.

The study included 103 patients receiving rosuvastatin and 96 patients receiving atorvastatin. Logistic regression analysis was performed to assess the association between gene polymorphisms and TC control (≤5.2 mmol/L) and LDL-C control (<2.6 mmol/L). Independent variables included the investigated polymorphisms, sex, age, and moderate-/high-intensity statin regimen.

Among rosuvastatin-treated patients, A-allele carriers of the ABCG2 421C>A polymorphism (OR=0.307; 95% CI 0.095–0.990; p=0.048) and older age (OR=0.934; 95% CI 0.895–0.974; p=0.002) were associated with better TC control in univariable analysis. In multivariable analysis, only age remained independently associated with TC control. In atorvastatin-treated patients, the ABCG2 421C>A polymorphism was the only significant predictor of TC control (OR=0.103; 95% CI 0.013–0.827; p=0.032). No significant associations were observed between the investigated polymorphisms and LDL-C control.

The ABCG2 421C>A polymorphism was associated with improved TC control in statin-treated patients. Measurement of plasma statin concentrations, combined with pharmacogenetic data, could support further research on optimizing dyslipidemia treatment.

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