Povezanost serumske koncentracije vitamina D i akutnog koronarnog sindroma

Correlation of serum concentrations of vitamin D and acute coronary syndrome

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UVOD: S obzirom na to da ekstraskeletni učinci vitamina D, posebice njegova uloga u održavanju kardiovaskularnog sustava dobivaju sve više pažnje, cilj je bio odrediti serumsku koncentraciju vitamina D u ispitanika s akutnim koronarnim sindromom i u kontrolnoj skupini.

PACIJENTI I METODE: U istraživanje su uključeni bolesnici liječeni zbog akutnog koronarnog sindroma (AKS) na Odjelu kardiologije OB „Dr. J. Benčević“ u Slavonskom Brodu i kontrolna skupina ispitanika koji nisu do uključene liječeni zbog bilo kakvog oblika koronarne bolesti srca (KBS). Skupinu ispitanika s AKS-om čini 60 bolesnika (40 muškaraca, srednja dob 58) hospitaliziranih zbog AKS-a i podvrgnuti koronarnoj angiografiji i revaskularizacijskim postupcima. Kontrolnu skupinu čini 60 bolesnika (38 muškaraca, srednja dob 58,5), bez AKS-a, ali uz prisutan barem jedan klasični čimbenik rizika za kardiovaskularne bolesti. Serumska vrijednost 25-hidroksi vitamina D određivala se elektrokemiluminiscentnom metodom. Insuficijencija vitamina D je definirana kao razina 25-hidroksivitamin D u plazmi ≤ 50 nmol/L.

REZULTATI: Nije bilo značajne razlike u demografskim i relevantnim kliničkim obilježjima između bolesnika s AKS-om i kontrola. Prosječna vrijednost koncentracije vitamina D izmjerene u bolesnika s AKS-om iznosila je 35,19 nmol/L uz (SD 17,54) i bila je statistički značajno niža u usporedbi s kontrolnom skupinom ispitanika čija je prosječna vrijednost iznosila 58,08 nmol/L uz (SD 16,29) (Student T-test, $p=0,001$). Vrijednosti vitamina D kod pacijenata s infarktom miokarda s elevacijom ST-segmenta su niže u odnosu na infarkt miokarda bez elevacije ST-segmenta (Student t-test, $p=0,702$). Bolesnici s višezilnom bolesti imali su najniže izmjerene vrijednosti vitamina D.

ZAKLJUČAK: Razina vitamina D značajno je niža u bolesnika s AKS-om u usporedbi s kontrolnom skupinom. Postoji trend prema nižim razinama vitamina D s povećanjem težine KBS, no te razlike nisu statistički značajne. Potrebne su daljnje studije na većem broju ispitanika koje će potvrditi naše rezultate.

INTRODUCTION: The extraskeletal effects of vitamin D in particular, its role in maintaining a healthy cardiovascular system are receiving increased attention.

PATIENT AND METHODS: Patient group included 60 patients (40 male, mean age 58) presented to cardiology clinic with acute coronary syndrome (ACS) and underwent coronary angiography. Control group included 60 patients (38 male, mean age 58.5) without ACS but with at least one known established risk factor for coronary artery disease (CAD) in the same period. 25-hydroxy vitamin D levels were assessed by automated electrochemiluminescence assay. Vitamin D deficiency was defined as plasma 25-hydroxyvitamin D levels ≤ 50 nmol/L.

RESULTS: There were no significant differences in demographic and relevant clinical characteristics between patients with ACS and controls. ACS group consisted of 36 STEMI (ST segment elevation myocardial infarction) and 24 high risk NSTEMI (non-ST segment elevation myocardial infarction) patients. The mean value vitamin D in patients with ACS was 35.19 nmol/L (SD 17.54) and was significantly lower compared with the control group whose mean value was 58.08 nmol/L (SD 16.29) (Student t-test, $p=0.001$). The values of vitamin D among patients with STEMI were lower compared to NSTEMI (Student t-test, $p=0.702$). There was a trend toward lower vitamin D levels with increasing severity of CAD, but the differences were not statistically significant.

CONCLUSIONS: Vitamin D levels were significantly lower in patients with ACS compared with controls. Patients with lower levels of vitamin D had higher prevalence of severe disease on coronary angiography. Further studies with a larger number of patients are warranted to confirm our results.

LITERATURE

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