Utječu li n-3 višestruko nezasićene masne kiseline na incidenciju fibrilacije atrijske?

Do n-3 polyunsaturated fatty acids have an impact on incidence of atrial fibrillation

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UVOD: Mehanizam mogućeg antiaritmickog učinka n-3 višestruko nezasićenih masnih kiselina (PUFA) je kompleksan i sličan učinku statina, vjerojatno vezan uz pleiotropne učinke na atrijske stanice.

CILJ: Naša studija ispituje mogući učinak 1000 mg omega-3 masnih kiselina na incidenciju epizoda fibrilacije atrijske (FA) u bolesnika s bolešću sinusnog čvora (SSS) koji imaju ugrađen DDDR elektrostimulator (ES).

PACIJENTI I METODE: U ispitivanje je uključen 71 prospektivno praćeni bolesnik, 50 muškaraca (70,4%), 21 žena (29,6%), prosječne dobi 68 godina (38-82), 40,8% bili su mlađi od 65 god. Svi su imali ugrađen Sensia DR (Medtronic) ES. Iz memorije su prikupljeni brojevi epizoda FA duljih od 1 min. Svi bolesnici imali su arterijsku hipertenziju, bez dokazane ishemijske bolesti srca, s očuvanom sistoličkom funkcijom (EF 50-60%), povećanim lijevim atrijima (4,0-5,7cm), na redovitoj terapiji ACE inhibitorima, blokatorima Ca kanala i beta blokatorima. Tijekom 6 mjeseci praćenja evidentirane su epizode AF, a potom je tijekom idućih 6 mjeseci uvedena i terapija 1000mg omega-3 masnim kiselinama, bez mijenjanja dosadašnje terapije te na kraju praćenja ponovno su evidentirane epizode AF. Statistička analiza: Wilcoxon i Mann Whitney test.

REZULTATI: Prije terapije prosječni broj epizoda bio je 428,8 (52-1032), a nakon terapije 279,2 (22-877) ($p < 0.001$). Nisu nađene razlike vezane uz spol, kao niti između mlađih od 65 godina i starijih bolesnika.

ZAKLJUČAK: Dodatak 1000 mg omega-3 masnih kiselina u terapiji bolesnika s bolešću sinusnog čvora značajno je smanjio broj epizoda FA bez obzira na dob ili spol bolesnika.

BACKGROUND: The mechanism of potential antiarrhythmic action of polyunsaturated fatty acids (PUFAs) is complex and, similarly to that of statins, is probably the result of their many pleiotropic effects on atrial electrophysiology and structure.

OBJECTIVE: The present study evaluates the impact of orally administered omega-3 ethyl ester concentrate (omega-3 PUFA) on incidence of atrial fibrillation (AF) episodes in patients (pts) with sick sinus syndrome (SSS) and implanted DDDR pacemakers.

PATIENTS AND METHODS: The study included a total of 71 prospectively followed pts with SSS, 50 men (70,4%), 21 women (29,6%), mean age 68 (38-82 year), 40,8% younger than 65. All of them had Sensia DR (Medtronic) pacemakers (PM). We collected data about AF episodes from the PM memory. All pts had arterial hypertension, without ischaemic heart disease, preserved EF (50-60%), enlarged left atria (4.0-5.7cm), were regularly taking ACE inhibitors, calcium channel blockers and beta-blockers. First, the 6 months memory data were collected and the therapy with 1000mg pure n-3 PUFA daily was introduced. Another data collection was made after 6 months. Statistical analysis was made using Wilcoxon and Mann-Whitney tests.

RESULTS: Before the therapy with 1000mg pure n-3 PUFA during 6 months pts had mean 428.8 AF episodes (range 52-1032). After administration of PUFA the number of AF episodes significantly diminished: 279.2 (22-877) ($p < 0.001$). There were no differences between gender, and also between pts younger than 65 years and the older ones.

CONCLUSION: Administration of 1000mg n-3 PUFA significantly reduced the incidence of AF in patients with SSS and implanted pacemakers regardless of sex and age.

LITERATURE

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