Regulacija i kontrola arterijskog tlaka u bolesnika s fibrilacijom atrijske

Regulation and control of blood pressure in patients with atrial fibrillation

Dejan Došen*,
Vedran Premužić,
Martina Lovrić Benčić,
Bojan Jelaković,
Davor Miličić

Medicinski fakultet Sveučilišta u Zagrebu, Klinički bolnički centar Zagreb, Zagreb, Hrvatska

University of Zagreb, School of Medicine, University Hospital Centre Zagreb, Zagreb, Croatia

KLJUČNE RIJEČI: arterijska hipertenzija, arterijski tlak, fibrilacija atrijske.

KEYWORDS: arterial hypertension, blood pressure, atrial fibrillation.

CITATION: Cardiol Croat. 2014;9(9-10):374.

***ADDRESS FOR CORRESPONDENCE:** Klinički bolnički centar Zagreb, Kišpatićeva 12, HR-10000 Zagreb, Croatia. / Phone: +385-98-590-009 / E-mail: dejan.dosen@yahoo.com

UVOD: Arterijska hipertenzija (AH) i fibrilacija atrijske (FA) su rasprostranjeni, često istovremeno prisutni zdravstveni problemi sa značajnim morbiditetom i mortalitetom. Cilj ovog rada je procijeniti vrijednosti arterijskog tlaka (AT), djelovanje antihipertenzivne terapije, dodatne rizične čimbenike te stupanj oštećenja ciljnih organa u bolesnika s FA i AH.

PACIJENTI I METODE: U istraživanju je sudjelovalo 49 nasumično odabranih bolesnika (26 muškaraca i 23 žena, prosječna dob 69 ± 15 godina) koji se liječe zbog AH i FA. Procjena AT učinjena je mjerenjem u tri navrata s sfingomanometrom prema ESH/ESC smjernicama. Snimljen je standardni 12-kanalni EKG. Ambulantno su učinjena antropometrijska mjerenja (visina, težina i opseg struka) i laboratorijska obrada. Procjena oštećenja ciljnih organa učinjena je prema sljedećem: funkcija bubrega izračunavanjem eGFR pomoću MDRD i Cockcroft-Gault formule, a srčane promjene procjenjujući EKG znakove hipertrofije lijeve klijetke pomoću Sokolow-Lyon indeksa i voltažnih kriterija.

REZULTATI: U ovoj studiji 85% bolesnika imalo je normalnu razinu AT (AT <140/90 mmHg), a 15% bolesnika imalo je AT između 140/90 i 160/100 mmHg. U 16% bolesnika regulacija arterijskog tlaka (AT) je postignuta s jednim antihipertenzivnim lijekom, a u 84% bolesnika uz dva ili više antihipertenziva. Permanentna FA s optimalnom srčanom frekvencijom (prosječno 80/min) zabilježena je u 85% bolesnika, dok je 12% bolesnika bilo u sinusnom ritmu u vrijeme pregleda. Nije nađena statistički značajna razlika u razini AT između bolesnika u paroksizmalnoj FA i bolesnika u permanentnoj FA (P 0,19) ili između bolesnika s normalnom i smanjenom bubrežnom funkcijom (P 0,36). Prema mjerenim parametrima nisu nađena oštećenja ciljnih organa.

INTRODUCTION: Arterial hypertension (AH) and atrial fibrillation (AF) are very prevalent and often coexisting conditions responsible for considerable morbidity and mortality. The aim of this study was to assess the value of arterial blood pressure (BP), antihypertensive therapy, additional risk factors and signs of target organ damage in patients with coexisting AH and AF.

PATIENTS AND METHODS: The study included 49 randomly selected patients (26 men and 23 women, mean age 69±15 years) treated for AH and AF. Estimation of BP and AF was performed by measuring on three occasions with sphygmomanometer according to ESH/ESC guidelines and standard 12-lead ECG was recorded, respectively. Ambulatory anthropometric measurements (height, weight, waist circumference) have been performed as well as laboratory testing. Evaluation of target organ damage was assessed as follows: kidney function by calculating eGFR with MDRD and Cockcroft-Gault formulas and heart changes by assessing ECG signs of left ventricular hypertrophy using Sokolow-Lyon index and voltage criteria.

RESULTS: In this study 85% patients had normal levels of BP (<140/90 mmHg) and 15% had AH (RR 140/90 to 160/100 mmHg). In 16% of patients regulation of BP was achieved with one antihypertensive, whereas most patients were treated with two or more antihypertensive drugs. Permanent AF with optimal heart rate (average of 80 bpm) was found in 85% and 12% patients were in sinus rhythm at the time of the study. No statistically significant difference in the level of BP between patients with paroxysmal AF and patients in permanent AF (P 0.19), or between patients with normal and reduced renal function (P 0.36) was found. Target organ damage was not found according to measured parameters.

TABLE 1. Clinical characteristics of patients included in study.

Variable	Age, y	BMI, kg/m ²	Diabetes, %	Systolic BP, mmHg	Diastolic BP, mmHg	Heart rate, beats/min	LV ejection fraction, %	eGFR, Cockcroft-Gault, ml/min	eGFR, MDRD, mL/min/1.73 m ²	ECG Sokolow-Lyon index, mV	ECG R in aVL, mV
Total population (N=49)	69±15	30.63±10	24	132±16	80±15	82±20	55±20	66.9±45	53±26	2.1±0.8	0.53±0.4

BMI – body mass index ; LV – left ventricle; eGFR – estimated glomerular filtration rate

ZAKLJUČAK: Većina bolesnika liječena je optimalnom medicamentnom terapijom uz dobro regulirane vrijednosti AT i srčane frekvencije, bez znakova oštećenja ciljnih organa. Zbog navedenog nije nađeno statistički značajnih razlika između skupina bolesnika.

CONCLUSION: Most patients were treated with optimal medical therapy, had good control of BP and heart rate, and no signs of target organ damage. Consequently no statistically significant differences between measured parameters were found.

RECEIVED:
October 1, 2014

LITERATURE

- Verdecchia P, Reboldi GP, Gattobigio R, et al. Atrial fibrillation in hypertension: predictors and outcome. Hypertension. 2003;41:218-23.