Kardiogoniometrija – nova, učinkovita, neinvazivna metoda u dijagnostici koronarne bolesti srca u populaciji žena

Cardiogoniometry – new and efficient non-invasive method in diagnosing coronary artery disease in women

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UVOD: Kardiovaskularne bolesti, a među njima koronarna bolest srca (KBS), vodeći su uzrok smrti u svijetu i u Hrvatskoj te su jedan od najvažnijih javnozdravstvenih problema današnjice.

METODE: Ergometrija je današnji zlatni standard u neinvazivnoj dijagnostici KBS, no osjetljivost pretrage iznosi 62%-75% u općoj populaciji, dok u populaciji žena iznosi 54%-68% i zbog toga se razvijaju nove dijagnostičke metode. Kardiogoniometrija je nova, neinvazivna, dijagnostička metoda, temeljena na vektoralnoj i digitalnoj analizi depolarizacije i repolarizacije miokarda, čime omogućuje prikaz dijelova srca koji su u relativnoj ili apsolutnoj ishemiji u mirovanju. Istraživanjem će se pratiti rezultati kardiogoniometrije i ergometrije i korelirati s nalazom koronarnografije određujući učinkovitost (osjetljivost i specifičnost) navedenih metoda te će se međusobno usporediti utvrđujući koja je metoda učinkovitija. U istraživanje su uključene bolesnice koje su hospitalizirane zbog kliničke slike stabilne angine pectoris.

REZULTATI: Nakon nešto više od 80 bolesnica, prosječne dobi 64,8 godina (naime, istraživanje je još u tijeku), osjetljivost kardiogoniometrije je 72,4%, specifičnost iznosi 73,2%, dok je negativna prediktivna vrijednost 86,6%.

ZAKLJUČAK: U usporedbi s ergometrijom, kardiogoniometrija je jednako učinkovita neinvazivna metoda u dijagnostici KBS u populaciji žena, uz prednost da je vremenski manje zahtjevnja i bilježi manji rizik potencijalnih komplikacija jer se izvodi u mirovanju. Time možemo zaključiti da bi kardiogoniometrija u budućnosti trebala biti uključena u dijagnostički algoritam za KBS kod žena, a time i u svakodnevni klinički rad.

INTRODUCTION: Cardiovascular diseases, including coronary artery disease (CAD), are the main death cause both worldwide and in Croatia.

METHODS: ECG-treadmill test (ETT) is a gold standard in non-invasive CAD diagnostics; its sensitivity is 62-75% in general population and 54-68% in women, which is the reason for developing new diagnostics methods. Cardiogoniometry is a non-invasive diagnostic method based on vectorial and digital analysis of myocardial depolarisation and repolarisation, providing projections of heart segments which are in relative or absolute ischemia at rest. The research will provide results obtained via cardiogoniometry and ETT, which will be correlated to coronarography results. Thus, the efficiency (sensitivity and specificity) of the methods will be tested and mutually compared to show which method is the most efficient. Research includes female patients who were hospitalised due to clinical state of stable angina pectoris.

RESULTS: For about more than 80 female patients, with the average age of 64.8 (the research is still underway), the sensitivity of cardiogoniometry is 72.4%, the specificity is 73.2%, whereas the negative predictive value is 86.6%.

CONCLUSIONS: When compared to ergometry, cardiogoniometry is as an efficient non-invasive method in diagnosing CAD in women and it is less time-consuming and carries less risks of potential complications because it is performed at rest. This leads to a conclusion that in the future cardiogoniometry should be included in diagnostic algorithm for CAD in women and therefore in everyday clinical work.

LITERATURE

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