



Uloga ehokardiografije u procjeni kardiovaskularnog rizika

The role of echocardiography in assessing cardiovascular risk

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Neinvazivni kvantitativni pokazatelji prisutnosti i proširenosti aterosklerotske koronarne bolesti imaju ulogu u stratifikaciji i prognozi bolesnika s čimbenicima rizika. Dosadašnje metode korištene u neinvazivnoj dijagnostici koronarne bolesti su ili nepouzdana ili skupe i time nisu široko dostupne (primjerice nuklearne dijagnostičke metode, CT, MR). Ehokardiografija je jednostavna neinvazivna metoda koja može biti od koristi u otkrivanju subkliničke koronarne bolesti kao i u stratifikaciji rizika. Identificiran je veći broj ehokardiografskih parametara za koje je u kliničkim studijama pokazano da su nezavisni pretkazatelji kardiovaskularnih događaja. Neki od njih poznati su dulji niz godina kao npr. hipertrofija lijeve klijetke te sistolička i dijastolička disfunkcija lijevog ventrikula. Posljednjih su godina veličina, odnosno volumen, lijevog atrija (LA), skleroza aortnog zalistka (aortoskleroza, AVS) te kalcifikat mitralnog prstena (MAC) prepoznati kao nezavisni pretkazatelji kardiovaskularnog morbiditeta i mortaliteta. MAC i AVS su u više kliničkih studija povezani sa subkliničkom kardiovaskularnom bolesti i kardiovaskularnim mortalitetom, što je perzistiralo i nakon uključivanja u analizu tradicionalnih faktora rizika. Navedeno govori da su MAC i AVS pokazatelji povećanog kardiovaskularnog rizika. Pokazano je da su dijametar i volumen LA nezavisni čimbenici rizika kardiovaskularnih događaja (nezavisno o tradicionalnim faktorima rizika), a pojedine su studije dale prednost određivanju volumena lijevog atrija kao osjetljivijeg parametra.

Zaključno, neinvazivno ehokardiografsko određivanje MAC, AVS i veličine LA poboljšava mogućnost otkrivanja subkliničke koronarne bolesti (neovisno o tradicionalnim čimbenicima rizika) i time procjenu rizika za razvoj kardiovaskularnih događaja.

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The non-invasive quantitative indicators in the presence and extension of atherosclerotic coronary disease play a role in the stratification and prognosis of patients with risk factors. Previous methods utilized in non-invasive diagnostic for coronary illness were either unreliable or expensive and therefore were not widely available (for example, nuclear diagnostic methods, CT, MR). Echocardiography is a simple non-invasive method that may be of use in revealing sub-clinical coronary heart disease and in the risk stratification.

A larger number of echocardiographic parameters have been identified which during the course of clinical studies have been proved to be independent pre-indicators of cardiovascular activity. Some of them have been known for a number of years such as for instance, hypertrophy of the left ventricle and systolic and diastolic dysfunction of the left ventricle. In the last few years, the size or rather the volume of the left atrium (LA), aortic valve sclerosis (aortosclerosis, AVS) and mitral annular calcification (MAC) have been recognized as independent pre-indicators of cardiovascular morbidity and mortality. MAC and AVS are in a number of clinical studies linked with sub-clinical cardiovascular disease and cardiovascular mortality, which has persisted even after including in the analysis traditional risk factors. The stated implies that MAC and AVS are indicators of increased cardiovascular risk. It has been shown that the diameter and volume of the LA are independent risk factors relating to cardiovascular events (independently of the traditional risk factors), while particular studies offered the benefit of determining the volume of the left atrium as the more sensitive parameter.

In conclusion, the non-invasive echocardiographic determination of MAC and AVS and the size of the LA improves the possibility of revealing sub-clinical coronary disease (independently of the traditional risk factors) and therefore the assessment of risk in the development of cardiovascular events.

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