



## Disekcija aorte

## Aortic dissection

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Aortna disekcija predstavlja relativno rijetko, ali potencijalno fatalno hitno stanje koje zahtijeva promptnu dijagnostičku potvrdu i liječenje. Obzirom da je incidencija bolesti relativno niska, prema registrima iznosi oko 3 bolesnika na 100.000 godišnje, te da se radi o medicinskoj emergenciji s visokim letalitetom, nije moguće provesti randomizirane prospektivne kliničke studije koje bi razjasnile najoptimalniji dijagnostičko-terapijski pristup. Osnivanje međunarodnih registara uvelike je pridonijelo razumijevanju genetike, čimbenika rizika, patofiziologije, kliničkog spektra i dijagnostičko-terapijskih postupaka kod bolesnika s disekcijom aorte. Najveći takav registar je *The International Registry of Acute Aortic Dissection* (IRAD). Ovaj registar osnovan je 1996. godine i danas obuhvaća 24 centra iz 12 zemalja s uključenih 1.600 bolesnika.

Prema podacima IRAD bolesnici sa disekcijom aorte najčešće su muškarci u dobi od 60 do 80 godina s anamnezom arterijske hipertenzije i ateroskleroze. Podaci registra jasno izdvajaju grupu bolesnika mlađih od 40 godina gdje se čimbenici rizika uvelike razlikuju, a kao vodeće valja istaknuti Marfanov sindrom, bikuspidnu aortnu valvulu i uživanje kokaina. Nadalje, u patofiziologiji bolesti sve se veću pozornost obraća intraaortalnim hematomima i penetrijućim aortalnim ulkusima koji u novoj (Svenssonovoj)

The aortic dissection is a relatively rare, but may be fatal emergency case requiring timely diagnostic verification and treatment. Since the disease incidence is relatively low, according to registries, it amounts to around 3 patients per 100,000 p.a., and that an emergency with high mortality is concerned, it is not possible to conduct randomized clinical studies that would clarify the optimum diagnostic and therapeutic approach. The foundation of international registries has greatly contributed to understanding of genetics, risk factors, pathophysiology, clinical spectrum and diagnostic and therapeutic procedures with patients with aortic dissection. The largest such registry is *The International Registry of Acute Aortic Dissection* (IRAD). This registry was founded in 1996 and today it includes 24 centers from 12 countries with 1.600 patients included.

According to the data by the IRAD, the patients with aortic dissection are most often men between 60-80 years of age with history relating to arterial hypertension and atherosclerosis. The data from the registry clearly separates a group of patients under 40 years of age where the risk factors largely differ, and the leading risk factors are Marfan's syndrome, bicuspid aortic valve and cocaine abuse. Furthermore, in pathophysiology of the disease, ever greater attention is to be paid to intra-aortic hematoma and penetrating aortic ulcer that according to the new (Svens-



klasifikaciji aortne disekcije predstavljaju posebne oblike ove bolesti.

Najčešća klinička manifestacija aortne disekcije prema IRAD registru bila je naglo nastala, trgajuća bol u prsištu (73% bolesnika), potom slijede sinkopa, drugi neurološki ispadi, simptomi ishemije organa, šok i drugo. Valja naglasiti da otprilike 10% bolesnika nema tipičnu kliničku prezentaciju te da je kod njih prognoza lošija. U kliničkoj evaluaciji bolesnika s disekcijom aorte posebnu pozornost treba obratiti ispitivanju arterijskih pulzacija, te auskultacijskom nalazu novonastalog reguritirajućeg šuma. U uvjetima hitne službe posebno važno mjesto u dijagnostici disekcije zauzima pregledna snimka srca i pluća na kojoj se, prema IRAD registru, u oko 63% slučajeva uočava sjena proširenog medijastinuma što može pravovremeno usmjeriti prema točnoj dijagnozi i skratiti eventualno dijagnostičko lutanje.

U definitivnoj dijagnostici aortne disekcije danas su nam na raspolaganje tri metode približno slične osjetljivosti i specifičnosti: MSCT angiografija aorte, MR aorte i transezofagusna ehokardiografija. U Kliničkoj bolnici "Sestre milosrdnice" prilikom visoke kliničke sumnje na aortnu disekciju kao dijagnostičku metodu izbora koristimo MSCT angiografiju aorte nakon koje slijedi transtorakalna ehokardiografija sa svrhom procjene aortne regurgitacije, eventualne ishemije miokarda i hemodinamske značajnosti perikardnog izljeva.

Medikamentna terapija disekcije aorte usmjerena je prema snižavanju tlaka i smanju stresa aortalnih stijenki prvenstveno primjenom parenteralnih vazodilatatora i beta-blokatora. Međutim, definitivno liječenje disekcije, poglavito one koja zahvaća uzlaznu aortu, je kirurško. Primjena stent-graftova, danas uglavnom rezervirana za disekcije descendentne aorte, predstavlja novu obećavajuću mogućnost uspješnog liječenja, ali zahtjeva ozbiljnu provjeru kroz klinička istraživanja čiji se rezultati s nestrpljenjem očekuju.

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son's) classification of aortic dissection represent some special types of this disease.

The most often clinical manifestation of the aortic dissection according to IRAD registry was a sudden, devastating chest pain (73% patients), followed by syncope, other neurological disturbances, organ ischemia symptoms, shock etc. Approximately 10% of patients have no typical clinical presentation and that their prognosis is worse. As regards the clinical evaluation of patients with aortic dissection, a special attention is to be drawn to testing arterial pulsations and auscultation finding of newly occurred regurgitating murmur. In the conditions of emergency unit, a special importance to be attached to diagnostics of dissection is a chest X-ray in which, according to the IRAD registry, in some 63% cases, a shadow of enlarged mediastinum is perceived, which may promptly lead to correct diagnosis and shorten time of any diagnostic uncertainties.

With regard to definite diagnostics of aortic dissection today there are three methods available that are approximately similarly sensitive and characteristic: MSCT aortography, MR of aorta and transeophageal echocardiography. In the Clinical Hospital "Sestre milosrdnice" in the conditions when we highly clinically suspect aortic dissection, we use MSCT aortography as a diagnostic method followed by transthoracic echocardiography for the purpose of evaluating aortic regurgitation, any possible myocardium ischemia and hemodynamic importance of pericardial effusion.

Pharmacological therapy of aortic dissection is focused on lowering blood pressure and reducing stress of aortic walls mainly by applying parenteral vasodilators and beta-blockers. However, final treatment of dissection, mainly the one affecting the ascending aorta, is a surgical treatment. The application of stent-grafts, today mainly intended for dissections of the descending aorta, is a new promising possibility of successful treatment, but requires a serious testing through clinical researches and we can hardly wait for their results.