

Kliničko iskustvo rotacijske aterektomije u Kliničkoj bolnici Dubrava

Clinical experience with rotational atherectomy in University Hospital Dubrava

 Boris Starčević*,
 Petra Vitlov,
 Ante Lisičić,
 Ognjen Čančarević,
 Irzal Hadžibegović,
 Aleksandar Blivajs

Klinička bolnica Dubrava,
Zagreb, Hrvatska

University Hospital Dubrava,
Zagreb, Croatia

KLJUČNE RIJEČI: rotablacija, modifikacija, kalcifikacija.

KEYWORDS: rotablation, modification, calcification.

CITATION: *Cardiol Croat.* 2018;13(11-12):394. | <https://doi.org/10.15836/ccar2018.394>

***ADDRESS FOR CORRESPONDENCE:** Boris Starčević, Klinička bolnica Dubrava, Avenija Gojka Šuška 6, HR-10000 Zagreb, Croatia. / Phone: +385-91-6018-847 / E-mail: starki_dgz@yahoo.com

ORCID: Boris Starčević, <https://orcid.org/0000-0002-3090-2772> • Petra Vitlov, <https://orcid.org/0000-0001-6983-1409>
Ante Lisičić, <https://orcid.org/0000-0002-4365-9652> • Ognjen Čančarević, <https://orcid.org/0000-0002-1285-8042>
Irzal Hadžibegović, <https://orcid.org/0000-0001-9139-5009> • Aleksandar Blivajs, <https://orcid.org/0000-0003-3404-3837>

Uvod: Rotacijska aterektomija, rotablacija (RA), zahtjevna je tehnika koja se primjenjuje tijekom perkutane koronarne intervencije (PCI) izrazito kalcificiranih stenozna epikardijalnih koronarnih arterija radi modifikacije plaka. Starenje populacije, kronična bubrežna insuficijencija kao i šećerna bolest, povezane su s kalcifikacijom koronarnih arterija (CAC) koja je zastupljena u 6 do 20 % bolesnika koji dolaze na PCI.¹⁻³

Rezultati: Predstavljamo podatke o uporabi RA u Kliničkoj bolnici Dubrava u razdoblju od siječnja 2016. do listopada 2018. Učestalost RA u udjelu ukupnih PCI iznosila je 0,9% 2016. te 1,2% 2018. godini, što je u skladu sa trenutnim prosjekom u vodećim europskim zemljama (0,8%-3,1%). U predmetnom razdoblju napravljeno je ukupno 27 RA, prosjek dob bolesnika iznosila je 66,7 ± 10,2 godina. 92% bolesnika prezentiralo se kliničkom slikom stabilne angine pektoris, a 8% bolesnika akutnim koronarnim sindromom. Veličina od 1,25 do 1,5 mm „burra“ bila je dostatna za modifikaciju plaka u većini slučajeva sa brzinom od 135,000 do 180,000 rpm. RA je najčešće izvođena na desnoj koronarnoj arteriji u 75% bolesnika, 41% na lijevoj prednjoj silaznoj arteriji i 4,1% na cirkumfleksnoj arteriji. Kod svih bolesnika implantirani su stentovi koji otpuštaju lijekove. Od periproceduralnih komplikacija zabilježena je jedna kontrastom inducirana nefropatija kod koje je bila potrebna privremena dijaliza te jedna neuspješna RA, gdje upotreba i najvećeg „burra“ nije dostatno modificirala plak da bi bio adekvatno predilatiran te je bila potrebna kirurška revaskularizacija. Nije zabilježena ni jedna komplikacija nužno povezana s RA. U dosadašnjem šestomjesečnom i jednogodišnjem razdoblju praćenja nisu zabilježeni veliki neželjeni događaji.

Zaključak: RA je neophodna tehnika u centrima koji izvode kompleksne PCI. Uz dobro planiranje izbora bolesnika kao i svladavanje tehnike RA je uspješna i sigurna, što pokazuje naše iskustvo.

Introduction: Rotational atherectomy, rotablation (RA) facilitates percutaneous coronary intervention (PCI) for complex lesions with severe calcification, in order to facilitate optimal stent delivery and expansion. Advanced age, renal disease and diabetes have all been associated with coronary artery calcification (CAC), with severe CAC affecting between 6 and 20% of patients treated with PCI.¹⁻³

Results: We present data using RA in University Hospital Dubrava from January 2016 to October 2018. The frequency of rotational atherectomy as a function of total PCI was 0.9% in 2016 and 1.2% in 2018 which is the same as in Europe countries (0.8% to 3.1%). During the last three years 27 RA was done, median age 66.7 ± 10.2 years. 92% of patients underwent RA had stable angina and 8% acute coronary syndrome. In most cases the burr size was 1.25- 1.5 mm considering that plaque modification is easily achieved with a 1.25 or a 1.5 mm burr in most cases with a speed range between 135,000 and 180,000 rpm. RA was done in 75% in right coronary artery, 41% in left anterior descending artery and 4.1% in circumflex artery. In all patients drug-eluting stents were implanted. Due to periprocedural complications there was one contrast induced nephropathy with need for dialysis and one unsuccessful RA due to unsuccessful predilatation even with highest burr used to plaque modification, therefore surgical revascularization was done. There were no complications associated to RA only. In our six months and one year follow up period no major adverse cardiac events was detected.

Conclusion: RA is necessary technique in interventional cardiology centers that do complex PCI's. With good choice of patients and mastering the technique, RA is safe and successful, as can be seen in our experience.

RECEIVED:
October 28, 2018

ACCEPTED:
November 5, 2018



LITERATURE

1. Barbato E, Carrié D, Dardas P, Fajadet J, Gaul G, Haude M, et al; European Association of Percutaneous Cardiovascular Interventions. European expert consensus on rotational atherectomy. *EuroIntervention.* 2015 May;11(1):30-6. <https://doi.org/10.4244/EIJV11I1A6>
2. Strisciuglio T, Barbato E. Rotational atherectomy: you will never regret using it but you often regret not having used it! *EuroIntervention.* 2016 Dec 20;12(12):1441-1442. <https://doi.org/10.4244/EIJV12I12A237>
3. Iannaccone M, Colangelo S, Di Mario C, Garbo R. Double wire rotational atherectomy technique in a heavily calcified coronary bifurcation. *EuroIntervention.* 2018 Jun 20;14(2):204-205. <https://doi.org/10.4244/EIJ-D-18-00001>