Zatajenje ciljne lezije nakon perkutane koronarne intervencije – rezultati Kliničkog bolničkog centra Zagreb

Target lesion failure after percutaneous coronary intervention – results from University Hospital Centre Zagreb

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Uvod: Stentovi koje luče lijek (DES, prema engl. *drug eluting stent*) su superiorni običnim metalnim stentovima (BMS, prema engl. *bare metal stent*) što se tiče zatajenja ciljne lezije (TLF prema engl. *target lesion failure*).[1,2] Ipak, ograničen je broj istraživanja koji uspoređuju moderne DES i BMS uzimajući u obzir način ugradnje stenta.

Bolesnici i metode: U istraživanje je uključeno 1.201 uzastopnih bolesnika kojima je između siječnja 2012. i prosinca 2017. učinjena perkutana koronarna intervencija (PCI) na lijevoj silaznoj koronarnoj arteriji. Bolesnici su razvrstani u skupine ovisno o PCI s modernim DES ili BMS (proizvedeni od kobalt kroma s tankim „strutevima"). Svi postupci su pregledani kako bi se ustanovila učestalost direktnog stentiranja (DS) i ne direktnog stentiranja (n-DS) – opisanog kao predilatacija lezije i/ili optimizacija stenta. Određena je incidencija kliničke TLF (sačinjena od restenoze u stentu (ISR) i tromboze u stentu (ST)).

Rezultati: Srednja dob ispitanika je bila 64,2 godine. Većina bolesnika su muškarci (74,9 %, N=896). BMS je ugrađen u 61,3 % (N=741) slučajeva. Ugradnja DES bila je češća u elektivnim intervencijama u bolesnika s poznatom koronarnom bolesti srca (36,7 vs 19,3 %) s češće postignutim TIMI 3 protokom (94,7 vs 85,7 %). N-DS je češće korišten prilikom ugradnje DES (78 vs 55,5 %), baš kao i sve njegove podskupine; predilatacija lezije (68,7 vs 48,6 %) i optimizacija stenta (45 vs 36,7 %). Povećanje korištenja n-DS je primijećeno kroz ispitivane godine. Medijan praćenja bolesnika iznosilo je 2,6 godina. TLF je bila znatno češća u BMS grupi (9,3 vs 4,3 %, p<0,001). Razlika je ponajprije uzrokovana razlikom u ISR (7,8 vs. 3,0 %, p<0,001), dok nije zabilježeno značajne razlike u ST niti u podvrstama ST. Rezultati su nepromijenjeni neovisno o tehnici ugradnje stenta.

Zaključak: Iako tehnika ugradnje stenta ne utječe direktno na TLF, koristeći moderne stentove i načine ugradnje postiže se značajna redukcija TLF u odnosu na povijesne podatke. Nadalje, podaci iz kliničke prakse ukazuju na incidenciju ISR i ST sličnu onima opisanim u modernim randomiziranim studijama.

Introduction: Drug eluting stents (DES) proved to be superior to bare metal stents (BMS) with regard to target lesion failure (TLF).[1,2] However, there are limited studies comparing contemporary DES and BMS that take into count technique of stenting.

Methods: 1201 consecutive patients with percutaneous coronary interventions (PCI) of left anterior descending (LAD) coronary artery, performed from January 2012 to December 2016, were included. Patients were stratified according to PCI with contemporary DES or BMS (cobalt chrome with thin struts). All procedures were reviewed to determine frequency of direct stenting and non-direct stenting (n-DS) - composed of lesion pre-dilatation and/or stent optimization. Cumulative incidence of clinical TLF (composed of in-stent restenosis (ISR) and stent thrombosis (ST)) was assessed.

Results: Mean patients age was 64.2 years, with majority being men (74.9 %, N=896). BMS was implanted in 61.3 % (N=741) of cases. DES implantation was more often performed during elective PCI in patients with known coronary artery disease (36.7 vs. 19.3 %) with more often achieved final TIMI 3 flow (94.7 vs. 85.7 %). N-DS was performed more often in DES group (78 vs. 55.5 %), just as all of its components; lesion pre-dilatation (68.7 vs. 48.6 %) and stent optimization (45 vs. 36.7 %). Increase in n-DS has been observed during studied years. Patient median follow-up was 2.6 years. TLF was significantly more common in BMS group (9.3 vs. 4.3 %, p<0.001). However, this was mainly driven due to significant deference in ISR (7.8 vs. 3.0 %, p<0.001). There was no significant differences in ST and its subcategories between groups. Results were unaffected by stenting technique.

Conclusion: Although, stenting technique does not directly influence TLF, using contemporary stents and implantation technique significant reduction of TLF is achievable compared to historic data. Furthermore, presented real world results suggest incidence of ISR and ST similar to the one observed in modern randomized control trials.

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