2. BÖLÜM

PERKÜTAN KORONER GİRİŞİMLERDE RİSK SINIFLAMA SKORLARI VE PREMEDİKASYON

Veysi CAN [1]

Tedavi kalitesini artırmak için sağlık hizmetinin sunumunda var olan en iyi seçenek belirlenmeye çalışılmaktadır. Hem medikal hem cihaz temelli tedavi stratejilerinin sayısının artması ile belirli bir hastalığın tedavisini optimize etmenin önemi artmaktadır. Teknolojik ilerlemeler (özellikle yeni kuşak stent, klavuz tel ve balonlar) ve hasta komorbiditelerin artması ile günümüzde tedavi stratejilerinde değişiklikler olmaktadır. Birden fazla stratejinin mümkün olduğu durumlarda tedaviyi optimal şartlarda yapmak için her birinin risk ve faydaları hasta ve yakınları ile tartışılmalıdır. Bunun için bazı risk modelleri oluşturulmuştur.

Koroner arter hastalığı (KAH) kronik koroner arter hastalığı, unstabil anjina pektoris, non-ST ve ST elevasyonlu miyokard enfarktüsüne kadar çeşitli senaryolardan oluşmaktadır. Klavuzlara göre KAH tedavisinde medikal tedavi, perkütan koroner müdahale ve koroner arter by-pass greftleme (CABG) ana tedavi stratejileridir. Hasta kliniği dışında birçok bireysel durum ve tedavi stratejisi KAH sonucunu belirleyen önemli parametrelerdir. Bu nedenle, bireyselleştirilmiş tedavi stratejileri herkese aynı tedavi kalıbının uygulandığı durumlardan daha fazla başarılı sonuçlar getirdiği, artık modern tıpta kabul edilmektedir. Örneğin antitrombotik tedavi alan hastanın bireysel iskemi riski ve kanama riskine göre strateji belirlenmelidir (1).

[1] Kardiyoloji Uzmanı, Şırnak Devlet Hastanesi, veysican_droda72 @hotmail.com

sistemine göre, 1 yıllık BARC 3-5 arası kanama riski hiçbir kriteri karşılamayanlarda %1,9 iken her 0,5'lik puan artışında sırasıyla kanama riski 4.01%, 5.98%, 7.42%, 8.60%, 12.21%, 12.29%, ve 17.64% olarak saptandı. ARC-HBR skorlama sistemine göre yüksek kanama riskine sahip olanların, olmayanlara göre 3 kat daha fazla kanama riski ile karşı karşıya olduğu görüldü (39).

SONUÇ

Birden çok skorlama sisteminin olması, ayrıca var olan klinik senaryoları benzer şekilde değerlendiren bu skorlar arasında uygun olanı seçmek biraz kafa karışıklığına yol açabilmektedir. Ancak kapsamlı, titiz ve başka çalışmalar ile onaylanan skor sistemleri bizim klinik pratiğimizde yer alabilir.

Stabil koroner arter hastalığı olanlarda SYNTAX I ve II, EuroSCORE ve STS skoru klinik pratiğimizde yol gösterici olabilmektedir. AKS olan hastalarda orta dönem mortalite ve revaskülarizasyonun zamanlaması açısından GRACE risk skoru, hastane içi kanama riskini öngören CRUSADE risk skoruda kanama riskini belirlemede faydalı olabilmektedir. Ancak CRUSADE risk skoru radyal işlem öncesi dönemi kapsamaktadır.

Erken dönem mortalite ve hastaneden erken taburculuğun belirlenmesinde ise ZWOLLE risk skoru kullanımı pratik ve yararlı olabilmektedir. Optimal medikal tedavinin zamanlaması ve kanama riskini belirleyen PRECISE-DAPT, DAPT ve ARC-HBR skorlama sistemleri günlük pratikte kullanılabileceğimiz skorlama sistemleridir.

KAYNAKÇA

1. Buccheri S, D'Arrigo P, Franchina G, et al. Risk stratification in patients with coronary artery disease: a practical walkthrough in the landscape of prognostic risk models. Interventional Cardiology Review 2018;13:112.
2. Neumann F, Sousa-Uva M, Ahlsson, et al. ESC Scientific Document Group. ESC/EACTS Guidelines on myocardial revascularization [published online August 25, 2018]. Eur Heart J https://doi org/101093/eurheartj/ehy394 https://aca demic oup com/eurheartj/advance-article/doi/101093/eurheartj/ehy394/5079120 2018.
3. Sianos G, Morel M-A, Kappetein AP, et al. The SYNTAX Score: an angiographic tool grading the complexity of coronary artery disease. EuroIntervention 2005;1:219-227.
4. Serruys P, Unger F, Van Hout B, et al. The ARTS study (Arterial Revascularization Therapies Study). Seminars in interventional cardiology: SIIC: WB Saunders Ltd, 1999:209-219.
5. Serruys PW, Onuma Y, Garg S, et al. 5-year clinical outcomes of the ARTS II (Arterial Revascularization Therapies Study II) of the sirolimus-eluting stent in the treatment of patients with multivessel de novo coronary artery lesions. Journal of the American College of Cardiology 2010;55:1093-1101.
6. Capodanno D, Capranzano P, Di Salvo ME, et al. Usefulness of SYNTAX score to select patients with left main coronary artery disease to be treated with coronary artery bypass graft. JACC: Cardiovascular Interventions 2009;2:731-738.

7. Valgimigli M, Serruys PW, Tsuchida K, et al. Cyphering the complexity of coronary artery disease using the syntax score to predict clinical outcome in patients with three-vessel lumen obstruction undergoing percutaneous coronary intervention. The American journal of cardiology 2007;99:1072-1081.
8. Garg S, Serruys PW, Silber S, et al. The prognostic utility of the SYNTAX score on 1-year outcomes after revascularization with zotarolimus-and everolimus-eluting stents: a substudy of the RESOLUTE All Comers Trial. JACC: Cardiovascular Interventions 2011;4:432-441.
9. Garg S, Sarno G, Girasis C, et al. A patient-level pooled analysis assessing the impact of the SYNTAX (synergy between percutaneous coronary intervention with taxus and cardiac surgery) score on 1-year clinical outcomes in 6,508 patients enrolled in contemporary coronary stent trials. JACC: Cardiovascular Interventions 2011;4:645-653.
10. Senanayake EL, Howell NJ, Evans J, et al. Contemporary outcomes of urgent coronary artery bypass graft surgery following non-ST elevation myocardial infarction: urgent coronary artery bypass graft surgery consistently outperforms Global Registry of Acute Coronary Events predicted survival. European journal of cardio-thoracic surgery 2012;41:e87-e92.
11. Kappetein A. Optimal revascularization strategy in patients with three-vessel disease and/or left main disease. The 3-year Outcomes of the SYNTAX Trial. Presented at the 24th EACTS annual meeting, Geneva, Switzerland 11-15th, Sep 2010, 2010.
12. Mohr FW, Morice M-C, Kappetein AP, et al. Coronary artery bypass graft surgery versus percutaneous coronary intervention in patients with three-vessel disease and left main coronary disease: 5-year follow-up of the randomised, clinical SYNTAX trial. The lancet 2013;381:629-638.
13. Escaned J, Collet C, Ryan N, et al. Clinical outcomes of state-of-the-art percutaneous coronary revascularization in patients with de novo three vessel disease: 1-year results of the SYNTAX II study. European heart journal 2017;38:3124-3134.
14. Nashef SA, Roques F, Michel P, et al. European system for cardiac operative risk evaluation (Euro SCORE). European journal of cardio-thoracic surgery 1999;16:9-13.
15. Ng AC, Delgado V, Van Der Kley F, et al. Comparison of aortic root dimensions and geometries before and after transcatheter aortic valve implantation by 2-and 3-dimensional transesophageal echocardiography and multislice computed tomography. Circulation: Cardiovascular Imaging 2010;3:94-102.
16. Serruys PW, Morice M-C, Kappetein AP, et al. Percutaneous coronary intervention versus coronary-artery bypass grafting for severe coronary artery disease. New England Journal of Medicine 2009;360:961-972.
17. Morice M-C, Serruys PW, Kappetein AP, et al. CLINICAL PERSPECTIVE. Circulation 2010;121:2645-2653.
18. Kim Y-H, Ahn J-M, Park D-W, et al. EuroSCORE as a predictor of death and myocardial infarction after unprotected left main coronary stenting. The American journal of cardiology 2006;98:1567-1570.
19. Rodés-Cabau J, DeBlois J, Bertrand OF, et al. CLINICAL PERSPECTIVE. Circulation 2008;118:2374-2381.
20. Romagnoli E, Burzotta F, Trani C, et al. EuroSCORE as predictor of in-hospital mortality after percutaneous coronary intervention. Heart 2009;95:43-48.
21. Dewey TM, Brown D, Ryan WH, et al. Reliability of risk algorithms in predicting early and late operative outcomes in high-risk patients undergoing aortic valve replacement. The Journal of thoracic and cardiovascular surgery 2008;135:180-187.
22. Morrow DA, Antman EM, Giugliano RP, et al. A simple risk index for rapid initial triage of patients with ST-elevation myocardial infarction: an InTIME II substudy. The lancet 2001;358:1571-1575.
23. Tang EW, Wong C-K, Herbison P, et al. Global Registry of Acute Coronary Events (GRACE) hospital discharge risk score accurately predicts long-term mortality post acute coronary syndrome. American heart journal 2007;153:29-35.

24. Singh M, Gersh BJ, Li S, et al. Mayo Clinic risk score for percutaneous coronary intervention predicts in-hospital mortality in patients undergoing coronary artery bypass graft surgery. Circulation 2008;117:356.
25. Ranucci M, Castelvecchio S, Menicanti L, et al. CLINICAL PERSPECTIVE. Circulation 2009;119:3053-3061.
26. Wykrzykowska JJ, Garg S, Onuma Y, et al. Value of Age, Creatinine, and Ejection Fraction (ACEF Score) in assessing risk in patients undergoing percutaneous coronary interventions in the 'all-comers' LEADERS Trial. Circulation: Cardiovascular Interventions 2011;4:47-56.
27. Halkin A, Singh M, Nikolsky E, et al. Prediction of mortality after primary percutaneous coronary intervention for acute myocardial infarction: the CADILLAC risk score. Journal of the American College of Cardiology 2005;45:1397-1405.
28. Addala S, Grines CL, Dixon SR, et al. Predicting mortality in patients with ST-elevation myocardial infarction treated with primary percutaneous coronary intervention (PAMI risk score). The American journal of cardiology 2004;93:629-632.
29. Tralhão A, Ferreira AM, Madeira S, et al. Applicability of the Zwolle risk score for safe early discharge after primary percutaneous coronary intervention in ST-segment elevation myocardial infarction. Revista Portuguesa de Cardiologia (English Edition) 2015;34:535-541.
30. Mrdovic I, Savic L, Krljanac G, et al. Predicting 30-day major adverse cardiovascular events after primary percutaneous coronary intervention. The RISK-PCI score. International journal of cardiology 2013;162:220-227.
31. Pocock S, Bueno H, Licour M, et al. Predictors of one-year mortality at hospital discharge after acute coronary syndromes: A new risk score from the EPICOR (long-tErm follow uP of antithrombotic management patterns In acute CORonary syndrome patients) study. European Heart Journal: Acute Cardiovascular Care 2015;4:509-517.
32. Farooq V, Serruys PW, Bourantas CV, et al. Quantification of incomplete revascularization and its association with five-year mortality in the synergy between percutaneous coronary intervention with taxus and cardiac surgery (SYNTAX) trial validation of the residual SYNTAX score. Circulation 2013;128:141-151.
33. Généreux P, Palmerini T, Caixeta A, et al. Quantification and impact of untreated coronary artery disease after percutaneous coronary intervention: the residual SYNTAX (Synergy Between PCI with Taxus and Cardiac Surgery) score. Journal of the American College of Cardiology 2012;59:2165-2174.
34. Capodanno D, Angiolillo DJ. Tailoring duration of DAPT with risk scores. The lancet 2017;389:987-989.
35. Subherwal S, Bach RG, Chen AY, et al. CLINICAL PERSPECTIVE. Circulation 2009;119:1873-1882.
36. Baber U, Mehran R, Giustino G, et al. Coronary thrombosis and major bleeding after PCI with drug-eluting stents: risk scores from PARIS. Journal of the American College of Cardiology 2016;67:2224-2234.
37. Choi SY, Kim MH, Cho Y-R, et al. Performance of PRECISE-DAPT score for predicting bleeding complication during dual antiplatelet therapy. Circulation: Cardiovascular Interventions 2018;11:e006837.
38. Raposeiras-Roubín S, Faxén J, Íñiguez-Romo, et al. Development and external validation of a post-discharge bleeding risk score in patients with acute coronary syndrome: the BleeMACS score. International journal of cardiology 2018;254:10-15.
39. Ueki Y, Bär S, Losdat S, et al. Validation of the Academic Research Consortium for High Bleeding Risk (ARC-HBR) criteria in patients undergoing percutaneous coronary intervention and comparison with contemporary bleeding risk scores. EuroIntervention: journal of EuroPCR in collaboration with the Working Group on Interventional Cardiology of the European Society of Cardiology 2020;16:371-379.