

## Balloon postdilatation is a mandatory step in the deployment of bioresorbable vascular scaffold

To the Editor,

I read the article by Özel et al. (1) entitled "What is better for predilatation in bioresorbable vascular scaffold implantation: a noncompliant or a compliant balloon?" recently published in *Anatol J Cardiol* 2016; 16: 244-49 with great interest. The authors demonstrated the effect of balloon predilatation using non-compliant and compliant balloon catheter in the deployment of bioresorbable vascular scaffold (BVS). They stated that balloon dilatation with noncompliant balloon may decrease the need for balloon postdilatation.

Drug-eluting BVS is a milestone for percutaneous coronary intervention. Although commercial packing of BVS looks similar to metallic stent, deployment is more sophisticated and requires proper predilatation, postdilatation of the lesion, and use of other imaging methods, including intravascular ultrasonography and optical coherence tomography (OCT) (2, 3). Proper apposition of scaffold is one of the major predictors of scaffold failure. Thus, routine high-pressure balloon postdilatation with noncompliant balloon catheter was suggested. Since BVS struts are not visible under fluoroscopy, additional imaging techniques, especially OCT, show apposition of the scaffold more clearly and enhance success rate of the procedure (4). Özel et al. (1) also stated that choice of noncompliant balloon predilatation would decrease need for postdilatation. It is significant that rate of balloon postdilatation is not high, and it was approximately 50% in the mentioned investigation. It is not advisable to state that there is advantage with noncompliant balloon predilatation with respect to reducing need for postdilatation without additional intravascular imaging technique. Conventional angiographic imaging cannot accurately guide proper apposition of the scaffold. Dalos et al. (5) reported that focal radial expansion was significantly reduced in BVS compared to drug-eluting metal stent in routine clinical setting without observing routine postdilatation protocol.

In conclusion, routine balloon postdilatation with non-compliant balloon catheter is as crucial as lesion preparation. Importance of balloon postdilatation should not be neglected by the authors, and all practitioners should be encouraged to perform routine noncompliant balloon postdilatation regardless of angiographic image to increase success rate of BVS deployment.

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## References

1. Özel E, Taştan A, Öztürk A, Özcan EE, Uyar S, Şenarşlan Ö. What is better for predilatation in bioresorbable vascular scaffold implantation: a non-compliant or a compliant balloon? *Anatol J Cardiol* 2016; 16: 244-9.
2. Karabulut A, Demirci Y. Cutting balloon use may ease the optimal apposition of bioresorbable vascular scaffold in in-stent stenosis. *Postepy Kardiol Interwencyjnej* 2015; 11: 64-6. **Crossref**
3. Karanasos A, Van Mieghem N, van Ditzhuijzen N, Felix C, Daemen J, Autar A, et al. Angiographic and optical coherence tomography insights into bioresorbable scaffold thrombosis: single-center experience. *Circ Cardiovasc Interv* 2015 May 8. **Crossref**
4. Caiazzo G, Longo G, Giavarini A, Kılıç ID, Fabris E, Serdoz R, et al. Optical coherence tomography guidance for percutaneous coronary intervention with bioresorbable scaffolds. *Int J Cardiol* 2016; 221: 352-8. **Crossref**
5. Dalos D, Gang I, Roth C, Krenn L, Scherzer S, Vertesich M, et al. Mechanical properties of the everolimus-eluting bioresorbable vascular scaffold compared to the metallic everolimus-eluting stent. *BMC Cardiovasc Disord* 2016; 16: 104. **Crossref**

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## Author's Reply

To the Editor,

We appreciate the valuable comments and critique of our colleague in response to our article entitled "What is better for predilatation in bioresorbable vascular scaffold implantation: a non-compliant or a compliant balloon?" published in the April 2016 issue of the *Anatolian Journal of Cardiology* (1). We have some contributions to offer.

Bioresorbable stent (BRS) is novel technology that is still being refined, and technical aspects of implantation have evolved over the last several years. In our retrospective study we analyzed patients who had received BRS treatment between January 2013 and November 2013. Now, in 2016, we completely agree that proper postdilatation is mandatory when implanting BRS. In 2013, however, importance of postdilatation was not very clear and postdilatation rate was 40% to 50% in large registries (2, 3). Our postdilatation rate was similar to that of previous studies. Avoiding BRS fracture was a factor that contributed to lower rate of postdilatation in BRS procedures. Smaller minimum lesion diameter after BRS implantation was another aspect that led to higher rate of postdilatation in com-