5. White JS, Chatterjee A, Bajaj NS, Leesar MA. Jailed polymer jacketed guide wire predicts myocardial infarction after bifurcation coronary intervention. J Am Coll Cardiol 2016;67:113.

REPLY: No Wire Fracture Is Great News, But Is Polymer Shearing the Real Danger?

We thank Drs. Chatterjee and Leesar for their interest in our paper (1). Although we agree with them regarding the fact that electron microscopy technique is able to detect a higher extent of polymer damage than stereoscopic microscopy in jailed wires, we do not know whether these small changes have a clinical impact. The concern of wire damage and embolization of the polymer to microcirculation is not a specific problem of percutaneous coronary intervention in bifurcation lesions and may occur in any type of percutaneous intervention (2). Despite this, polymer-coated wires are widely used around the world and they represent the 29% of wires sales in Europe (Abbott Vascular). In our study, we cannot assess distal embolization of hydrophilic-coating material because it is a clinical, not a pathological study. However, we did not observe harmful consequences of this possible complication described by Grundeken et al. (2), in terms of myocardial damage. Thus, post-procedure troponin (Tp) levels were similar between polymer-coated and non-polymer-coated wire groups (3 ± 7 IU/l vs. 4 ± 9 IU/l), as well as the incidence of relevant (Tp >70 times upper limit: 1% vs. 2%) and nonrelevant (Tp >5 times upper limit: 7.8% vs. 7.5%) myocardial infarction (1).

During the last years, avoiding polymer-coated wires in the jailed wire technique has been the general recommendation (3,4). Our study is the first randomized comparison between these 2 types of wires and our results suggest a change in this old concept.

Regarding the use of different degrees of polymer coatings or intermediate polymer cover wires, we also agree with Chatterjee and Leesar that these types of wires should be tested in this indication. Therefore, in the perspectives of our paper (1), we specified that the next step in this research line should be to test new-generation wires (as that mentioned in the letter) from different companies for this indication.

*Manuel Pan, MD
Soledad Ojeda, MD
Elena Villanueva, MD
Miguel Romero, MD

*Department of Cardiology
Reina Sofia Hospital
Avenida Menendez Pidal, s/n
Córdoba 14004
Spain
E-mail: manuelpanalvarez@gmail.com

http://dx.doi.org/10.1016/j.jcin.2016.11.016

Please note: Drs. Pan and Ojeda have received minor lecture fees from Abbott. All other authors have reported that they have no relationships relevant to the contents of this paper to disclose.

REFERENCES

1. Pan M, Ojeda S, Villanueva E, et al. Structural damage of jailed guidewire during the treatment of coronary bifurcation lesions: a microscopic randomized trial. J Am Coll Cardiol Intv 2016;9:1917–24.

2. Grundeken MJ, Li X, Kurpershoek CE, et al. Distal embolization of hydrophilic-coating material from coronary guidewires after percutaneous coronary interventions. Circ Cardiovasc Interv 2015;8:e001816.

3. Louvard Y, Lefevre T, Morice M-C. Percutaneous coronary intervention for bifurcation coronary disease. Heart 2004;90:713–22.

4. Latib A, Colombo A. Bifurcation disease. What do we know, what should we do? J Am Coll Cardiol Intv 2008;1:218–26.

Subclinical Leaflet Thrombosis in Bioprosthetic Aortic Valves

Neuss et al. (1) report a case of fatal thrombotic occlusion of the left main trunk after transcatheter aortic valve replacement (TAVR). The 81-year-old patient was previously successfully treated with a Portico valve (St. Jude Medical, St. Paul, Minnesota) for severe aortic stenosis. Post-procedural antithrombotic treatment included 6 months dual antiplatelet followed by monotherapy with aspirin. After 2 years without symptoms, the patient developed acute chest pain and shock. Echocardiography showed globally impaired left ventricular systolic function, but normal aortic valve function. Coronary angiography revealed thrombotic occlusion of the left main stem, and a contrast defect on the aortic root injection was interpreted as a large thrombosis on the bioprosthetic aortic valve.

The authors correctly state that clinical thrombosis on transcatheter bioprosthetic aortic valves is rare. Latib et al. (2) reported 26 cases (0.61%) of transcatheter heart valve thrombosis among 4,266 patients. These patients were symptomatic and often had an increased transvalvular gradient. This is in contrast to subclinical leaflet thrombosis, which may be seen as hypoattenuated leaflet thickening (HALT) on computed tomography (CT) scanning in up to 40% of patients with bioprosthetic aortic valve (3).