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REPLY: Chocolate Trials

We read with great interest the letter from Dr. Dayan following publication of our paper in the *Journal* (1). We recently published the largest matched comparison of valve-in-valve (ViV) transcatheter aortic valve replacement (TAVR) versus redo surgical aortic valve replacement (SAVR). Our results showed that in the short-term perspective, ViV TAVR was associated with lower cardiovascular mortality at 30 days compared with redo SAVR. Conversely, long-term follow-up showed higher rates of rehospitalization for heart failure after ViV TAVR, with no difference regarding cardiovascular mortality. Interestingly, Dr. Dayan compared the analysis of SAVR versus percutaneous aortic valve replacement to eating a bar of chocolate, with short-term outcomes being positive (satisfaction), whereas long-term outcomes were potentially devastating.

He specifically points out the inclusion of rehospitalization as part of a composite primary endpoint. This outcome being more frequent in the early period after surgery, it usually leads to an increased rate of events in this arm, as observed in PARTNER 3 (2). In our analysis, the combined endpoint (cardiovascular death, stroke, myocardial infarction, and rehospitalization for heart failure) seemed to follow a chocolate bar rule. The composite endpoint was less frequent after ViV TAVR in the first 18 months; then, the curves tended to cross, and ViV TAVR was associated with higher rates of the combined endpoint. Those conclusions emphasized the need for long and very long follow-up when comparing surgical and interventional treatment of cardiovascular disease. Similarly, regarding revascularization of left main coronary artery disease, long-term follow-up of the EXCEL trial showed a lower benefit of the percutaneous strategy versus surgery (3). Taken together, these findings from aortic and coronary fields support longer follow-up in clinical studies before widespread adoption in daily practice. We need to moderate our appetite when considering new interventional treatments and allow long-term comparison to finalize the optimal menu.

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https://doi.org/10.1016/j.jacc.2020.09.013

Dr. Fauchier has been a consultant or speaker for Bayer, Bristol Myers Squibb/Pfizer, Boehringer Ingelheim, Medtronic, and Novartis. Dr. Bourguignon has been a consultant for Edwards Lifesciences. All other authors have reported that they have no relationships relevant to the contents of this paper to disclose.

The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the *JACC* author instructions page.

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