DAPT (15-60 days). Furthermore, rates of bleeding events did not differ between the 2 stent groups.[5]

Additional evidence is inferred in studies looking at patients with thoracic malignancies: Mediastinal radiotherapy decreases mortality and malignancy recurrence but is associated with a 7-fold increased risk of CAD. Surgical revascularization is often necessary but is associated with high perioperative complications due to unsuitability of the left internal mammary artery following irradiation. Bare-metal stents, in this population, have been associated with very high rates of in-stent restenosis. In contrast, the newer DESs have shown no difference in the rate of in-stent restenosis between irradiated and nonirradiated patients,[6] which makes them preferable in this population.

Although cancer patients may be considered at high risk for bleeding, this risk is not equivalent in all patients with a history of cancer. Cardiovascular disease in patients with cancer is complex, and treatment needs to be individualized. There is evidence to suggest that refraining from the use of DES in this rapidly expanding cohort can lead to higher major cardiovascular events, which can thwart the effectiveness of advancements in both fields. Given more current data demonstrating improved efficacy with DESs and short-duration DAPT, without an increase in bleeding risk, perhaps it is time to rethink our strategy in cancer patients who undergo percutaneous coronary intervention.

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In Reply I—A Differing Opinion on Primary Percutaneous Coronary Intervention in Patients Who Have Had Cancer: Stent Choice in Onco-cardiology Revisited

To the Editor: We sincerely welcome the letter by Ganatra et al[1] describing their concern regarding the use of bare-metal stents (BMSs) in patients with cancer. The authors raise important questions regarding the best strategy for percutaneous revascularization in this cohort.

It is important to consider 3 important factors before coronary revascularization in patients with cancer. First, patients with cancer may be at higher bleeding risk due to coagulopathy and the expected need for cancer-related surgeries. Second, cancer is associated with a prothrombotic state that may increase the risk for in-stent thrombosis. Third, many patients with cancer have limited life expectancy, which may compete with coronary events as the principle source of morbidity and mortality.

Thus, it is conceivable that BMSs may be preferable in patients with cancer because they are associated with lower risk of in-stent thrombosis, allowing for earlier interruption of dual antiplatelet therapy (DAPT). It is correct that BMS use is at the expense of increased risk of in-stent restenosis and need for target lesion revascularization; however, these are typically late events that are rare and many patients die from cancers before in-stent restenosis ensues.

The authors extrapolate data from the Zotarolimus-eluting Endeavor sprint stent in Uncertain DES candidates (ZEUS) trial, which showed that zotarolimus-eluting coronary stents were associated with decreased risk of 1-year major adverse cardiovascular events (death, myocardial infarction, or target vessel revascularization) when compared with BMSs, despite similarity in the duration of DAPT.[2] It is important to note, however, that out of 1606 patients enrolled in this trial, only 5.2% (84 of 1606) patients had cancer and only 19% (305 of 1606) had ST-elevation myocardial infarction (STEMI), thus limiting the generalizability of these data to all cancer patients with STEMI.

The emerging data on the safety of shorter periods of DAPT in drug-eluting stents (DESs) may make them more appropriate for use in patients with cancer. The 2016 update of the American College of Cardiology/American Heart Association guidelines on DAPT duration after coronary stenting now recommends 6 months of DAPT after DES placement in patients who have stable ischemic heart disease and 12 months

after DES placement in patients who have had a myocardial infarction.[3] It is important to note, however, that because many patients with active cancer have heightened thrombosis risk, extended DAPT may be appropriate in selected patients. It is essential to individualize this risk and balance it against the bleeding risk to optimize outcomes. For example, one study showed that the duration of DAPT can be determined on the basis of poststenting intravascular imaging in patients with cancer, allowing earlier interruption of DAPT.[4] Thus, the 2016 Society for Cardiac Angiography and Interventions Expert Consensus Statement suggests using newer generation DESs in patients with cancer who have a platelet count of more than 30,000.[5]

We agree that the current preference of BMSs in cancer patients is dependent on clinical experience and is not driven by evidence, simply because randomized trials have generally excluded patients with cancer. We believe that the therapeutic approach should be individualized, highlighting the need for interventional cardiologists with an understanding of onco-cardiology.

The authors also discussed the optimal therapeutic approach in patients who have coronary artery disease and who received mediastinal radiation. Although this was not explicitly discussed by Wang et al,[6] we agree with the authors that care in these patients also needs to be individualized. The authors correctly report that these patients are at increased risk for in-stent restenosis, especially after placement of BMSs.[7] In a retrospective cohort analysis of 157 patients with a history of mediastinal radiation who underwent coronary stenting in one center, BMS use, but not DES, was associated with increased risk of long-term mortality compared with matched controls.[8]

The lack of data to guide treatment strategies in these complex patients is alarming. There needs to be an urgent call for prospective research to address these and other unresolved questions in the field. Until we get prospective data, treatment strategies should be individualized, and a multidisciplinary approach to patient care (with oncologists and cardiologists contributing) should be encouraged.

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In Reply II—A Differing Opinion on Primary Percutaneous Coronary Intervention in Patients Who Have Had Cancer: Stent Choice in Onco-cardiology Revisited

To the Editor: We deeply appreciate and commend Ganatra et al[1] for the points they raised, namely, that cancer patients who have coronary artery disease requiring treatment may not be well served by withholding drug-eluting stents (DESs). As they rightly state, it is often feared that these patients might suffer a bleeding event or undergo an intervention that could compromise the duration of dual antiplatelet therapy (DAPT). Intriguingly, an updated recommendation on the minimum duration of DAPT after DES placement was released by the American College of Cardiology/American Heart Association just last year, and therapy for 6 months was considered sufficient as a general recommendation, that is, for all patients.[2] As the authors further indicate, newer generation DESs are even safer than bare-metal stents in terms of stent thrombosis and mortality.[3] Accordingly, one may argue that DES use should not be feared, even in cancer patients.

Data on this very topic are, however, scarce, and even more so when it comes to systematically obtained data and clinical trials. Our study, as implicated by Ganatra et al,[1] therefore presents an opportunity to surveil and compare the treatment of coronary artery disease patients with and without cancer. Truly, it is a striking observation that only 40% of the cancer patients who suffered an ST-elevation myocardial infarction received DESs in our study,[4] in view