

## Antithrombotic Therapy and Surgery: From Consensus to Clinical Practice. Response to Related Letters



### Antitrombóticos y cirugía: del consenso a la práctica clínica. Respuesta a cartas relacionadas

#### To the Editor,

First of all, we would like to thank Santiago de Dios and Martín-Rioboó et al. for their interest in the consensus document on the perioperative and periprocedural management of antithrombotic therapy.<sup>1</sup> We would like to clarify the following regarding the comments received:

The situation of patients on anticoagulants and antiplatelet agents is complex and in our opinion the decision to stop one of these drugs (and when to do so) must be individualized in each patient. Regarding patients with low ischemic risk (essentially after 1 year) who are taking anticoagulation alone, there is no evidence to generate a recommendation in this consensus for the use of antiplatelet agents as a “bridge” therapy in the perioperative period.<sup>2</sup>

The consensus document recommends limiting bridge therapy and reserving it only, according to the available evidence, for patients with high thromboembolic risk.<sup>3</sup> The recommended dose of low-molecular weight heparin refers to a full anticoagulation dose, which is restarted after the procedure depending on the bleeding risk and is later stopped once the adequate international normalized ratio is reached with oral anticoagulation.<sup>4</sup> In patients receiving prophylactic doses of parenteral anticoagulation prior to intervention, it is recommended that the last dose be taken 12 hours previously; if the parenteral anticoagulation is used at a therapeutic dose, the recommendation is to stop it 24 hours previously.

As to the classification of operations and procedures according to bleeding risk, these have been stratified by all the participating societies according to their criteria and evidence.<sup>1</sup> Given that there may be some disagreement for certain procedures, and to facilitate the application of the recommendations, the consensus document leaves open the possibility of not stopping anticoagulation in such cases, as is explained in the text and in the footer of Table 1 in the supplementary material.

In conclusion, we hope that the consensus document will be a useful, practical, easy-to-use tool and that it will help implement

local multidisciplinary protocols to avoid the adverse consequences of variability in clinical practice.

David Vivas,<sup>a,b,\*</sup> Jose Luis Ferreiro,<sup>c</sup> and Inmaculada Roldán<sup>d</sup>

<sup>a</sup>Instituto Cardiovascular, Hospital Clínico San Carlos, Madrid, Spain

<sup>b</sup>Unidad de Cardiología, Clínica MD Anderson, Madrid, Spain

<sup>c</sup>Área de Enfermedades del Corazón, Hospital Universitario de Bellvitge - IDIBELL, L'Hospitalet de Llobregat, Barcelona, Spain

<sup>d</sup>Servicio de Cardiología, Hospital Universitario La Paz, Madrid, Spain

\* Corresponding author:

E-mail address: [dvivas@secardiologia.es](mailto:dvivas@secardiologia.es) (D. Vivas).

Available online 7 August 2018

#### REFERENCES

- Vivas D, Roldán I, Ferrandis R, et al. Perioperative and Periprocedural Management of Antithrombotic Therapy: Consensus Document of SEC, SEDAR, SEACV, SECTCV, AEC, SECPRE, SEPD, SEGO, SEHH, SETH, SEMERGEN, SEMFYC, SEMG, SEMICYUC, SEMI, SEMES, SEPAR, SENEC, SEO, SEPA, SERVEL, SECOT and AEU. *Rev Esp Cardiol.* 2018;71:553–564.
- Steinberg BA, Kim S, Piccini JP, et al. Use and associated risks of concomitant aspirin therapy with oral anticoagulation in patients with atrial fibrillation: insights from the Outcomes Registry for Better Informed Treatment of Atrial Fibrillation (ORBIT-AF) Registry. *Circulation.* 2013;128:721–728.
- Steinberg BA, Peterson ED, Kim S, et al. Use and outcomes associated with bridging during anticoagulation interruptions in patients with atrial fibrillation: findings from the Outcomes Registry for Better Informed Treatment of Atrial Fibrillation (ORBIT-AF). *Circulation.* 2015;131:488–494.
- Spyropoulos AC, Al-Badri A, Sherwood MW, Douketis JD. Periprocedural management of patients receiving a vitamin K antagonist or a direct oral anticoagulant requiring an elective procedure or surgery. *J Thromb Haemost.* 2016;14:875–885.

#### SE RELATED CONTENT:

<https://doi.org/10.1016/j.rec.2018.05.024>

<https://doi.org/10.1016/j.rec.2018.05.025>

<https://doi.org/10.1016/j.rec.2018.05.032>

1885-5857/

© 2018 Sociedad Española de Cardiología. Published by Elsevier España, S.L.U. All rights reserved.

## Cancer and Acute Coronary Syndrome. A Close but Complicated Relationship



### Cáncer y síndrome coronario agudo. Una estrecha pero complicada relación

#### To the Editor,

I have carefully read the article by Cordero et al.<sup>1</sup> on the postdischarge prevalence and incidence of malignant tumors in patients with acute coronary syndrome (ACS), and I would like to congratulate the authors for addressing a subject that has been little studied to date, but is of great interest to cardio-oncology departments.

The first finding of note in this study was that the on-admission prevalence of cancer in patients admitted for an ACS was 3.4% and that the postdischarge incidence of cancer was 3.1% (median follow-up of 33 months). In summary, 6.5% of patients admitted for an ACS have had or will have cancer. However, it is expected that the prevalence of cancer in patients with ACS will increase in the

coming years. In fact, cardiovascular disease is currently an important cause of morbidity and mortality in cancer patients,<sup>2,3</sup> for which there are main 2 reasons: the increased survival of cancer patients, because of early detection programs and advances in antitumor treatments<sup>4</sup>; and because cancer and cardiovascular disease have numerous risk factors in common.<sup>5</sup> In fact, the present study found no differences between the percentage of patients with or without cancer with a history of smoking, hypertension, dyslipidemia, or diabetes.

The second truly striking and novel finding of the present study was the increase in mortality observed in patients with prevalent and incident malignant tumors. In patients with de novo tumors, the increase in mortality was mainly due to an increase in noncardiovascular mortality (subhazard ratio [sHR], 33.03; 95% confidence interval [95%CI] 20.32–53.67).

Although this finding could suggest that the role of cardiologists would be minimal in this patient subgroup, analysis of these results should be deepened. It is unclear from the present study whether the noncardiovascular mortality rate of patients with de

novo tumors was expected, given their underlying oncological disease or, on the contrary, whether it was higher than expected. It would therefore be interesting to investigate whether the increase in noncardiovascular mortality in patients with cancer and a history of ischemic heart disease could be due to the use of less aggressive treatments for their disease, such as lower surgical intervention rates, lower use of chemotherapy treatments, or increased use of second-line chemotherapy with less curative capacity but fewer adverse cardiovascular effects. For this reason, "cardio-oncologists" should also play an active role in assessing the stability and severity of cardiovascular disease in this patient subgroup, and thus in assessing the risk/benefit of initiating certain chemotherapeutic treatments.

In contrast, the increase in mortality in the patients with prevalent tumors was due to an increase in both noncardiovascular mortality (sHR = 11.53; 95%CI, 6.07-21.89) and cardiovascular mortality (sHR = 2.21; 95%CI, 1.12-4.33). The authors attribute the increase in cardiovascular mortality to a lower revascularization rate and a decreased use of drug-eluting stents. To date, no data are available on the prognosis of patients with active tumors who are admitted with ACS and undergo invasive diagnostic and therapeutic procedures.<sup>6</sup> The presence of cancer may limit the use of cardiac catheterization because of frailty caused by aggressive chemotherapy treatments in these patients. Similarly, thrombocytopenia secondary to myelosuppressive chemotherapy or in patients with blood cancers could explain the decreased use of drug-eluting stents due to the need to limit the duration of dual platelet antiplatelet therapy.

The results of this study should provide a starting point to initiate strategies in cardio-oncology units to reduce cardiovascular mortality in patients with ACS and prevalent malignant tumors and to reduce noncardiovascular mortality in patients with de novo tumors following an ACS.<sup>7</sup>

Gerard Oristrell

Unidad de Cardio-Oncología, Servicio de Cardiología, Hospital Universitario Vall d'Hebron, Barcelona, Spain

E-mail address: [goristrell@vhebron.net](mailto:goristrell@vhebron.net)

Available online 17 July 2018

## REFERENCES

1. Cordero A, López-Palop R, Carrillo P, et al. Prevalence and postdischarge incidence of malignancies in patients with acute coronary syndrome. *Rev Esp Cardiol.* 2018;71:267-273.
2. Henson KE, Reulen RC, Winter DL, et al. Cardiac mortality among 200,000 five-year survivors of cancer diagnosed at 15 to 39 years of age: The Teenage and Young Adult Cancer Survivor Study. *Circulation.* 2016;134:1519-1531.
3. López-Fernández T, Martín-García A, Santaballa Beltrán A, et al. Cardio-onco-hematology in clinical practice. position paper and recommendations. *Rev Esp Cardiol.* 2017;70:474-486.
4. Miller KD, Siegel RL, Lin CC, et al. Cancer treatment and survivorship statistics, 2016. *CA Cancer J Clin.* 2016;66:271-289.
5. Blaes A, Prizment A, Koene RJ, Konety S. Cardio-oncology related to Heart Failure: Common Risk Factors Between Cancer and Cardiovascular Disease. *Heart Fail Clin.* 2017;13:367-380.
6. Giza DE, Marmagkiolis K, Mouhayar E, Durand JB, Ilescu C. Management of CAD in patients with active cancer: the interventional cardiologists' perspective. *Curr Cardiol Rep.* 2017;19:56.
7. Nholá LF, Villarraga HR. Rationale for cardio-oncology units. *Rev Esp Cardiol.* 2017;70:583-589.

### SE RELATED CONTENT:

<https://doi.org/10.1016/j.rec.2017.07.020>

<https://doi.org/10.1016/j.rec.2018.05.033>

<https://doi.org/10.1016/j.rec.2018.06.025>

1885-5857/

© 2018 Sociedad Española de Cardiología. Published by Elsevier España, S.L.U. All rights reserved.

## Cancer and Acute Coronary Syndrome. A Close, but Complicated Relationship. Response



### Cáncer y síndrome coronario agudo. Una estrecha, pero complicada relación. Respuesta

#### To the Editor,

We appreciate the points raised regarding our study.<sup>1</sup> Recent acute coronary syndrome (ACS) constitutes a limitation for some oncological treatments, which could explain the increased noncardiovascular mortality in patients with prevalent or incident malignant tumors. Likewise, we agree that prevalent tumors limit revascularization both quantitatively and qualitatively.

However, we would like to qualify the opinion that the results of our study should constitute a starting premise for cardio-oncology units. Cancer affects less than 8% of patients with ACS, which could call into question the efficiency of a having a cardio-oncologist in all care settings. Most patients discharged following ACS receive care at nontertiary hospitals,<sup>2</sup> where it is virtually impossible to have specific units for ACS, heart failure, imaging, and cardio-oncology. Rather, we would advocate continuity of care in ACS in such a way that patients receive a personalized follow-up depending on their risk of the more common and serious complications, such as heart failure or reinfarction.<sup>3</sup> In fact, we have demonstrated that follow-up in a clinic specific for high-risk ACS is associated with better control of risk factors

and improved prognosis.<sup>4</sup> Thus, we advocate continuity of care in ACS and personalized follow-up depending on each patient's risk, with rational coordination of those involved in each situation.

## CONFLICTS OF INTEREST

A. Cordero received a research grant from the Spanish Society of Cardiology in 2017. A. Cordero and V. Bertomeu-González have received research support from CIBERCV.

Alberto Cordero,<sup>a,b,\*</sup> Vicente Bertomeu-González,<sup>a,b</sup> Julio Núñez,<sup>b,c</sup> and Vicente Bertomeu-Martínez<sup>a</sup>

<sup>a</sup>Departamento de Cardiología, Hospital Universitario de San Juan, San Juan de Alicante, Alicante, Spain

<sup>b</sup>Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares (CIBERCV), Spain

<sup>c</sup>Departamento de Cardiología, Hospital Clínico Universitario, Valencia, Spain

\* Corresponding author:

E-mail address: [acorderofort@gmail.com](mailto:acorderofort@gmail.com) (A. Cordero).

Available online 7 August 2018