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2. Romaguera R, Ribera A, Güell-Viaplana F, et al. Reducción de los ingresos por infarto agudo de miocardio con elevación del segmento ST en Cataluña durante la pandemia de COVID-19. *Rev Esp Cardiol.* 2020;73:778–780.
3. García S, Albaghda MS, Meraj PM, et al. Reduction in ST-segment elevation cardiac catheterization laboratory activations in the United States during COVID-19 pandemic. *J Am Coll Cardiol.* 2020;75:2871–2872.
4. Gadella A, Sastre MA, Maicas C, Rodríguez-Padial L, Arias MA. Infarto agudo de miocardio con elevación del segmento ST en tiempos de COVID-19: ¿regreso al siglo pasado? *Una llamada de atención Rev Esp Cardiol.* 2020;73:582–583.
5. Pintilie M. Análisis de riesgos competitivos. *Rev Esp Cardiol.* 2011;64:599–605.

Competing risk largely explains the drop in admissions for acute cardiovascular disease during the COVID-19 pandemic. Response

El riesgo competitivo puede explicar en gran medida la disminución de los ingresos por enfermedad cardiovascular aguda durante la pandemia de COVID-19. Respuesta

To the Editor,

The existence of competing risks is also one of our main hypotheses to explain the reduction in admissions for acute cardiovascular disease during the COVID-19 pandemic.¹ The excess mortality from all causes of more than 50% that occurred in Catalonia (11 568 deaths), especially in patients older than 74 years (9749),² would also explain the slight decrease in the average age of patients seen.³

The AMI code registry also showed, in March, a slight (not significant) increase in complications indicative of delays to care: cardiogenic shock, ventricular fibrillation, and acute phase mortality. However, we do not have solid data that allow us to verify these hypotheses. In fact, the excess mortality by cause for Spain is not yet known. In the USA, more than a third of the excess was due to causes other than COVID-19, and the cardiac mortality practically doubled.⁴ Accepting the limitations of extrapolating these figures to our setting, we could postulate that, of the 43 938 excess deaths in Spain,² approximately 15 000 would be from causes other than COVID-19, and many of these from cardiac causes. In this case, not only would there be a competing risk with death from COVID-19, but also with cardiac death caused by the secondary effect of the pandemic on access to health care.

Therefore, although the proportion attributable to each factor is unknown, it seems that they would all have a substantial relative weight, and some—such as fear of attending hospital—could be prevented with simple information campaigns.

In addition, it would be expected that such a large reduction in non-COVID-19 care⁵ would have a substantial impact on health in the mid-term and on organization of patient care for those with cardiovascular disease.

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6. Katz MH. *Multivariable analysis. A practical guide for clinicians*. Cambridge: Cambridge University Press; 1999:75.



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The pandemic certainly provides us with an enormous in vivo experiment, as well as some challenges: interpreting the partial and often biased view of reality that the data affords us and reusing these data in an attempt to improve patient care for those with cardiovascular disease in this new situation.

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REFERENCES

1. Rodríguez-Padial L, Arias MA. El riesgo competitivo puede explicar en gran medida la disminución de los ingresos por enfermedad cardiovascular aguda durante la pandemia de COVID-19. *Rev Esp Cardiol.* 2020. <https://doi.org/10.1016/j.recesp.2020.07.022>
2. Sistema de Monitorización de la Mortalidad diaria (MoMo) en España. Available at: https://momo.isciii.es/public/momo/dashboard/momo_dashboard.html. Accessed 20 Aug 2020.
3. Romaguera R, Ribera A, Güell-Viaplana F, et al. Reducción de los ingresos por infarto agudo de miocardio con elevación del segmento ST en Cataluña durante la pandemia de COVID-19. *Rev Esp Cardiol.* 2020;73:778–780.
4. Woolf SH, Chapman DA, Sabo RT, Weinberger DM, Hill L. Excess deaths from COVID-19 and other causes March-April 2020. *JAMA.* 2020. <https://doi.org/10.1001/jama.2020.11787>
5. Rodríguez-Leor O, Cid-Álvarez B, Ojeda S, et al. Impacto de la pandemia de COVID-19 sobre la actividad asistencial en cardiología intervencionista en España. *REC Interv Cardiol.* 2020;2:82–89.



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To the Editor,

We read with interest the recently-published scientific letter by Caneiro-Queija et al.,¹ in which they showed the possibility of combined treatment of mitral regurgitation (MR) and tricuspid regurgitation (TR) in a single procedure using MitraClip devices. It does indeed demonstrate the high levels at which operators and structural intervention are currently working, but we would like to raise some points regarding the indication for performing the 2 repairs in a single procedure.