CONFLICTS OF INTEREST

E. Abu-Assi is Associate Editor of *Revista Española de Cardiología*.

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Octogenarians: Too Old for Surgical Myocardial Revascularization?

Octogenarios: ¿demasiado ancianos para revascularización miocárdica quirúrgica?

To the Editor,

We would like to congratulate Díez-Delhoyo et al[1] for their work on the prognostic value of the residual SYNTAX score (rSS) in octogenarians with non–ST-elevation acute coronary syndrome, and we would like to offer some comments.

Although the study was a retrospective analysis, the findings showed rSS to be a strong prognostic predictor in these patients. The study involved patients with multivessel disease, and the preferred treatment strategy was percutaneous revascularization of the culprit lesion. The primary endpoint (combined all-cause mortality and myocardial infarction) was compared against the rSS (rSS < 8, rSS 8-20 and rSS > 20) on admission and at 6 months. For both the admission period and the 6-month period, the primary endpoint increased significantly as the rSS increased. The main finding of the study was that in the multivariable analysis, rSS was found to be the greatest predictor of the primary endpoint at 6 months (odds ratio = 9.4; 95% confidence interval, 1.61-55.1; $P = .013$).

The selection of revascularization strategy in octogenarians is complex, due to the patients' frailty and comorbidities and the extent of coronary disease. Therefore, percutaneous revascularization of the culprit lesion with medical management of the remaining lesions is a widely-practiced option. However, this strategy has some drawbacks:

- Identification of the "culprit lesion": in many patients with multivessel disease, a culprit lesion cannot be identified. Several studies have shown that up to 40% of patients have multiple plaques with angiographic criteria of a culprit lesion and that there is a weak correlation between the culprit lesion and the electrocardiographic and echocardiographic changes.[2]
- The natural history of "nonculpable lesions": in stable coronary disease, coronary lesions can remain quiescent for long periods. However, after an acute coronary syndrome, nonculpable lesions can be "activated", leading to short-term and long-term thrombotic events.[3]
- Complete revascularization: complete revascularization is associated with lower morbidity and mortality and is easier to perform via surgical revascularization than via percutaneous revascularization.[4] An rSS > 8 after incomplete percutaneous revascularization is associated with a poor prognosis,[5] and the study by Díez-Delhoyo et al[1] shows the usefulness of this score for octogenarian patients.
- Surgical vs percutaneous revascularization: several studies comparing both types of revascularization in multivessel disease included patients with non–ST-elevation acute coronary syndrome and octogenarian patients, although there are no studies on this combination of factors specifically. For more than 20 years, numerous studies have compared surgical revascularization and percutaneous revascularization (angioplasty alone, conventional stents, and first- and second-generation drug-eluting stents). In general, surgical revascularization outcomes have been favorable,[4,6] particularly in patients with intermediate to high complexity for percutaneous revascularization (baseline SYNTAX score > 22), as would be the case for octogenarians.
- Surgical revascularization in octogenarians: although the inclusion of octogenarian patients in clinical trials has been limited,[6] recent evidence from various real-world registries also indicates surgical revascularization to be the preferred alternative to percutaneous revascularization for such patients.[7,8]

In conclusion, according to the available evidence, surgical revascularization is a valid therapeutic option for octogenarians with non–ST-elevation acute coronary syndrome and multivessel disease. Therefore, in the absence of specific contraindications, the advanced age of octogenarian patients should not pose an obstacle to them benefiting from surgical revascularization.

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Octogenarians: Too Old for Surgical Myocardial Revascularization? Response

Octogenarios: ¿demasiado ancianos para revascularización miocárdica quirúrgica? Respuesta

To the Editor,

First, we wish to thank Fernández-Rodríguez et al for their interest in our article.[1] We think it reflects a reality in the health field—that we are treating patients conservatively solely because of their age, frailty, and/or comorbidity, and this seems to have an impact on prognosis.[2] We agree that the identification of the culprit lesions in patients with multivessel disease is complex, and our intention was to convey a reasonable doubt concerning the benefits of more extensive revascularization, which is usually feasible (highly significant percentages of our patients had lesions amenable to percutaneous revascularization, proportions that would probably be higher if surgical revascularization were to be considered.)

We also agree that complete revascularization is more frequently obtained with surgery, but the management of the population represented by our study group is controversial. Given the lack of randomized studies and taking into account the reports mentioned by Fernández-Rodríguez et al in their letter,[3,4] we can only point out that the expected benefits occur over the intermediate- to long-term (something to be taken into account in octogenarians), that at those ages, the number of years is not always the major factor (quality of life, length of hospital stay, dependence on others, etc.), and that, despite the attempts to limit biases by including controls, one tends to think that the risk profile in octogenarians who undergo surgery is somewhat more positive.

The initial aggression of percutaneous revascularization is less invasive and, thus, is often preferred, but we agree that, if the patient is operable, the aim is complete revascularization. Therefore, surgery must continue to be considered an option. Nevertheless, our study shows that there is still some reluctance to perform complete revascularization, and that this could be a modifiable cause of poor prognosis in octogenarians hospitalized for acute coronary syndrome.

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