ST-segment elevation acute myocardial infarction consensus statement and a new therapeutic approach

To the Director

The authors of the ST-segment Elevation Acute Myocardial Infarction Consensus statement (1) clearly deserve to be congratulated for developing such an important topic and also for publishing it simultaneously with its presentation in the Congress. This coincidence, following other international societies, is relevant and I hope will continue as a rule of SAC consensus presentations.

The recommendation about the new therapeutic approach for fibrin-specific thrombolytic agents drew my attention. Their use is recommended at half-dose in subjects >75 years of age. This is really a novelty regarding clinical practice guidelines and I fully agree with the concept, but some clarifications would be required.

Regarding TNK, it is easy to understand the dose reduction, as the STREAM trial (2) demonstrated a significant increase of intracerebral hemorrhage for this population group in the first stage of the study before reducing the dose. There are also other small experiences (3) with good therapeutic results using half-dose of TNK and a recent publication focused on the elderly population of the STREAM trial. (4)

In essence, although we may say that even today, dose reduction in patients >75 years is still an "off-label" use, I believe that for safety reasons we will all agree with this therapeutic change.

But the topic is more complex, as unfortunately in Argentina we do not have TNK yet, nor we know for certain when we will, though I agree with the authors that, for our country, its quick availability would be highly important.

In our clinical practice, we use tPA as first line thrombolytic agent. The guideline includes it at half-dose in subjects >75 years. This seems logical, but the evidence on this point is even scanter. We can only use the data of the GUSTO trial (5) with major bleeding in elderly patients, but without much evidence on the efficacy at half-dose. On the other hand, the mentioned studies (2, 3) use a pharmacoinvasive strategy that is not always our standard of care.

In patients older than 75 years and when the ischemic territory is not very extensive, we still use streptokinase (SK), but certainly it is going to be easier to include half-dose tPA in these patients, as in reality, doctors that must treat infarctions in the emergency room and many times transfer them with thrombolytics are very reluctant to use SK due to hypotension, alergy, and other problems. Probably, the use of half-dose tPA or TNK will be more easily accepted by doctors involved in emergency care.

In conclusion, if TNK were soon available in our country all this discussion would be pointless, but today I find it is somehow uncertain to use half-dose tPA, though philosophically I completely agree with this approach.

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Authors´reply

We are grateful for the concepts expressed by Dr. Caccavo on the referred Consensus. To be honest, we share all his concepts.

Guidelines respect as much as possible the existing scientific evidence but unfortunately this does not always exist to the degree we would all expect, so recommendations based on "expert opinion" are frequently seen in all consensuses of the world.

We fully agree that there is no evidence that lower tPA doses are mandatory in elderly patients. However, bearing in mind that on the one hand fibrin-specific fibrinolytics present a higher trend to produce cerebral hemorrhage and that tPA elicits more bleeding (though curiously, extracraneal) and need for transfusions than TNK, added to the fact that bleeding consequences are always more severe in the elderly, we included this comment in the text.

Elderly patients are a population for which there is little evidence as they are excluded or scarcely represented in number in most studies, which denotes a serious problem, as this population groups grow in number with increased worldwide life expectancy.

The concept of "primum non nocere" and common sense probably influenced our advice, which is not more than that and does not imply an obligation but a "recommendation".

Treatment guidelines/consensuses should never be taken as dogmas and a critical and reflexive attitude towards them is welcome and essential.

Exactly as Dr. Caccavaro proceeded.

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