Decoding the complexity of benign prostatic hyperplasia therapies in the PARTEM trial—authors' reply

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We appreciate the interest of Lopategui et al. for our trial and will comment all points that they raise.[1,2]

The first point refers to adherence to medical treatment, which is a well-recognised problem in benign prostatic hyperplasia (BPH). The high rate (23.3%) of non-adherent patients at 9 months in the combined therapy (CT) group cannot be compared to the 31% and 24.8% rates at 4 years cited in the MTOPS and CombAT trial respectively.[3,4] In fact, in PARTEM, non-adherence was evaluated based on a specific validated patient's questionnaire and actual accurate pill count. This method necessarily improves the accuracy of drug adherence evaluation and can explain this difference. In addition, as discussed in our paper, even higher non-adherence figures have been previously reported in large series (45.6% at 1 year).[5] Last but not least, as precisely explained in the methods sections of our trial, we took special care not to include patients with known poor compliance by excluding patients with previous alpha-blockers poor tolerance.

The second point concerns the use of Patient Related Outcome Measures (PROMS) such as IPSS and QoL instead of "objective" outcomes such as PSA, prostate volume, flow-max and post-voiding residue evolution (no statistical difference between the 2 groups in our work). There are two reasons for this choice; first, IPSS is the reference metric for evaluating any treatment of BPH; second, BPH is not a deadly disorder and patients are consulting to improve their urological quality of life. The improvement of so-called "objective measures" are only secondary endpoints. Hence, and sadly enough, there is no strong correlation between the two parameters, although this would help all the medical community to better assess all types of treatment for bothersome lower urinary tract symptoms (LUTS) related to BPH.

We remind that PARTEM demonstrated the absence of sexual life impairment after prostatic artery embolization (PAE), on the contrary to CT, which is one frequent concern for patients. We agree that PARTEM, as any open-label trial, can have some detection bias. Nonetheless, IPSS/QoL improvement was not only significant in both the CT and PAE groups, but also prolonged for 2 years. The effect of this bias is therefore most likely minor and does not reduce the evidence that the trial brings to the management of these patients.

We also argue against the assertion of the supposed "alarmingly high" (i.e., 47.36% of patients) need for invasive therapy at 2 years in the CT group. This qualifier is inappropriate because in the CombAT study, baseline population had much less severe BPH (lower mean IPSS and no history of alpha-blockers treatment failure), which undoubtedly explains the very low need for invasive therapy. On the contrary, in the PARTEM trial, CT group patients and their urologists favored an additional procedure (mostly PAE) in case of failure of CT to bring them enough urinary comfort and/or experienced unacceptable adverse events after a significantly long-period of failed medical management. Additionally, patients enrolled in PARTEM trial were open to the possibility of having an invasive therapy, otherwise they would not have consent to randomisation. Similarly, the retreatment rate in the PAE group was not extremely high (38%), since only 5 (11.9%) patients needed surgical treatment—a 10% PAE failure rate commonly reported in the literature, the others needing only medical therapy (alpha-blockers in most cases) as a complement of PAE.

Regarding the radiation exposure, we want to reassure the readership of The Lancet Regional Health Europe. We contributed to a specific multicentre international study on PAE showing that "radiation exposure was within the realm of typical medical imaging and environmental exposure levels, with no 90-day deterministic complications and negligible excess risk for stochastic events".[6]

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Last, we found that cost of PAE-first strategy was higher than cost of CT-first strategy, a well-known finding for all minimally invasive surgical treatments. However, this increase in cost resulted in better clinical outcome confirming that PAE provided good value for money compared to medical treatment. Finally, initial costs of PAE are likely to be further reduced by the shift to outpatient procedures.

To conclude, the points raised by Lopategui et al. are not strong enough to reduce level of evidence of our trial. We are confident that the PARTEM trial should secure the place of PAE in the Urological and Interventional Societies guidelines on the management of bothersome LUTS related to BPH.

Contributors

MS, CD, HP, IDZ, NT, and GC participated in writing the manuscript and approved the final version.

Declaration of interests

MS, CD, HP, IDZ, NT, and GC declare no conflict of interest.

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