LETTER

Approaches to interpret the outcomes of a network meta-analysis on comparative efficacy of different targeted therapies plus fulvestrant for advanced breast cancer following progression on prior endocrine therapy

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Dear editor

Zhang and colleagues have conducted a network meta-analysis regarding fulvestrant combined targeted therapies for breast cancer, which has been published in the Cancer Management and Research journal.[1] The study itself is interesting in its approach.

Targeted therapies with fulvestrant

A previous network meta-analysis exists, which explores [fulvestrant + palbocicilib] and [fulvestrant + everolimus] as targeted therapies in HR+/HER2 breast cancer.[1] Zhang et al acknowledge the existence of the paper above, and it appears that they seek to build upon it by exploring more targeted therapies such as abemacicilib, aovitinib, buparlisib etc. and comparing between them to identify the best combination.[2] The study is noteworthy, as it aims to highlight the best treatment strategy in breast cancer for the clinical scenario.

Is fulvestrant combination with palbociclib ideal therapy for ABC postmenopausal women?

However, despite the study being conducted with practical application in mind, it is hard to consider the study success in terms of clinical utility and improvement in ABC patients clinical outcomes. Although Zhang et al's study's results are concordant with the previously conducted study, the basis for the comparisons leading to the result presents some issues. The number of studies that have been included in the meta-analysis (n=11) is far too low.[3] When we consider that 10 targeted therapies are being assessed in this network analysis by Zhang and colleagues, having only 11 studies across there ten cohorts greatly reduces the power of this study. Many of the treatment strategies have only a single study contributing to the meta-analysis. Therefore, it is too soon to conclude that fulvestrant + palbocicilib is the best treatment method available.

The small size of the included studies

Furthermore, this limitation (the small sample size of studies) has not been discussed by the authors in the manuscript. The lack of a segment discussing the limitations of this study as part of the study report is itself a major issue and is detrimental to the future clinical utility of the study.

Too early to confirm the best treatment strategies

We hope that these issues are given serious consideration, as studies that seek to inform clinical practices and treatment strategies, must ensure that their study's conclusions are well supported by a large set of reliable literature, and if not, clearly indicate that the results require further research to be verified.

Disclosure

The authors report no conflicts of interest in this communication.

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