Reviewer's report

Title: Androgen receptors and serum testosterone levels identify different subsets of postmenopausal breast cancers

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Reviewer: Takashi Suzuki

Reviewer's report:

This manuscript describes AR and serum testosterone levels in postmenopausal breast cancers. Elevated testosterone levels were significantly associated with AR-highly-positive expression in ER-positive tumors, and tended to be associated with AR-absent expression in ER-negative cases.

This is a descriptive study, and the results were relatively limited. However, authors analyzed a large number of cases (n = 528), and data are interesting. This manuscript probably provides a new point of view for hormone-dependent growth of breast cancers.

1. In the Methods section, authors need to provide a rationale for readers why authors used 1%, 30% and 60% as cut-off points in the evaluation of AR immunoreactivity with an appropriate reference.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.