Letter to the Editor

Interpretation of ER and Her2neu hormonal receptor in breast cancer

Dear Editor,

I read with extreme interest the Original article titled “Prevalence of molecular subtypes of invasive breast cancer: A retrospective study” by Kumar et al. published in *Med J Armed Forces India* 2015;71:254–258.¹

This article is regarding the interpretation of ER and Her2neu, hormonal receptors, which are very important prognostic and predictive markers in breast ductal carcinoma and are helpful in deciding appropriate therapy. I will provide the uniform format of how to interpret ER, PR, and Her2neu as per the ASCO/CAP American Society of Clinical Oncology and College of American Pathologists joint recommendations, which are practiced for breast cancer ER, PR, and Her2neu reporting worldwide and in India too in all Oncocenters. I am presenting the scoring system in detail so that the young budding reporting pathologists can know the exact uniform reporting format, which is approved worldwide and should be followed uniformly. (1) Percentage of cells that are nuclear immunoreactive should be reported. (2) Tumors having 1% or higher number of cells nuclear-positive stained for ER and PR are positive. (3) Average intensity of stain that is nuclear positive (weak, moderate, or strong) should be reported. (4) Allred, H, or Quick score should be given.

As per the Allred score² for ER and PR nuclear positivity, the proportion score (PS) (0–5) and the % positive tumor cells are respectively, 0 (0%), 1 (<1%), 2 (1–10%), 3 (11–33%), 4 (34–66%), and 5 (67–100%).

The intensity of staining (IS) for the nuclear positivity of the cells graded as 0, 1, 2, and 3 was as none, mild, moderate, and strong, respectively. So the total scores for ER and PR are given as TS = PS + IS. TS 0 and 2 are negative scores, and 3, 4, 5, 6, 7, and 8 are positive scores.

Another CAP-approved method of reporting is the H score for estrogen and progesterone receptor evaluation. Tumor cell percentage with no signal was %X0, weak signal was %X1, moderate signal was %X2, and strong signal was %X.

Reporting Her2neu³ is also as per the standard criteria (3): 0 (negative) – no immunoreactivity or immunoreactivity in <10% of tumor cells, 1+ (negative) – faint weak immunoreactivity in >10% of tumor cells but only a portion of the membrane is positive, 2+ (equivocal) – weak to moderate complete membrane immunoreactivity in >10% of tumor cells or circumferential intense membrane staining in <30% of cells, 3+ (positive) – more than 30% of the tumor cells must show circumferential intense and uniform membrane staining, with homogenous chicken-wire pattern.

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Reply

Dear Editor,

We thank the readers for the keen interest shown in reading our article.

The ASCO/CAP protocol for reporting ER, PR, and Her 2 neu in immunohistochemistry is followed in this centre too, however the same was not elaborated for the sake of brevity.

Thanks & regards,

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