**Prevalence of androgen receptor positivity in triple negative breast cancer**

P. Jovita Martin, K. Kannan, S.K. S, G. Raja

Medical Oncology, Rajiv Gandhi Govt General Hospital, Chennai, India

**Aim/Background:** Triple negative Breast carcinoma (TNBC) occurrence is on the rising trend. This has been recognized as a unique subgroup of breast cancer. TNBC occurrence is around 15-20 % of all breast cancers. Therefore this makes it an ideal target for therapeutic exploitation. Park S et al 2010. TNBC is defined by the absence of a target, therefore, there is absence of a tailored targeted therapy, leaving its management depend on conventional cytotoxic regimens. This group of patients poses a major challenge to the physicians and patients.

**Methods:** All modified radical mastectomy specimens or core needle biopsies of breast carcinomas with already proven invasive breast carcinomas with the hormone receptor status showing ER negative and PR negative status were included. The exclusion criteria were ER positive and PR positive patients, Phylloides tumors and benign breast lesions. The histopathological slides and paraffin blocks of concerned cases were collected to study the immunohistochemical expression of Androgen receptor. The total breast cancer patients between the period of October 2014 to February 2014 were 734 cases, 72 cases were triple negative breast cancer cases as demonstrated by the Immunohistochemistry.

**Results:** The Study shows 22 patients in Premenopausal group (30.6%), 36 patients in postmenopausal group (50%) and 14 patients in perimenopausal group (19.4%). AR Positive were seen in majority of IDC cases (90.3%). AR positivity is seen in Grade II 51.4% and Grade III 27.8 % the rest in Grade I subgroup of 20.8%. AR positivity is seen maximum in the locally advanced breast cancer (LABC) group of around 75 %. AR positivity was seen in 3 cases (4.2%) with Lympho vascular invasion and 6 (8.3%) without LVI. AR positivity was seen more with <3 LN positive cases 6.9% out of 58.3%. However the p value is > 0.05 hence is not significant.

**Conclusions:** The total numbers of AR positive cases were 9 / 72 (12.5%). This is in concordance with the literature data that AR is < 20 % positive in TNBC. The p value is 0.000 which is < 0.05 hence the value is significant. This helps us understand that AR positivity in TNBC warrants more study and therapeutic exploitation in order to obtain clinical benefit for this subgroup of patients.

**Disclosure:** All authors have declared no conflicts of interest.