

Defining age cut off age for “Young patients” with breast cancer

Dear Sir,

Breast cancer that develops at a young age is different from that arising in older menopausal patients. These differences are attribute to the faster tumor growth, [represented by the short doubling time], expression of markers of metastatic potential like MMP2, and high levels of markers for the drug resistance.^[1] On the other hand, there have been earlier reports that suggested that there was no significant difference in outcome between younger, versus older women with breast cancer.^[1,2] However, the weight of literature appears to support generally worse behavior in breast cancer in younger women. The question that was overlooked by many was “the age cut off”. Majority of the literature suggest that patients younger than 40 are considered as the young patients. This assumption was achieved based on the earlier reports stating that the women under 40 are unlikely to achieve menopause after chemotherapy, and the benefit in Hormone receptor positive patients was less.^[3] However, as the mean age of the patients with breast cancer in India is almost 5 years less than that of the western world,^[4] the same might not be true across the globe. The Indian data too suggest a relatively worse prognosis from the western Indians and no/little differences from the reports of Adayar cancer institute. The careful review suggested that in studies where the cut off age of 40 years was chosen, the difference was not as pronounced as it was observed in those studies where cut off age was chosen as 35.^[1-6] Probably the only study that addressed this issue was by OJ *et al*, who also found on multivariate analysis, that age < 35 years was associated with a statistically significant increased risk of loco regional recurrence even when compared to those who were between 35 and 40. The five-year rate of loco regional control was 87.9% in patients < 35 years old compared with 91.7% in patients 35 to 40 years old ($P = 0.042$).^[5] Similarly the systematic review of various studies yielded similar results. In the results published in a recent conference in the metastatic setting, which suggested that younger patients have a worse disease course, even matching for the other known prognostic variables.^[6]

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