Introduction

Unique challenges and outcomes of young breast cancers from a tertiary care cancer centre in India

• Young breast cancer (YBC)– defined as <40 years age are relatively rare (5.6% of western population) inadequately represented in trials and have unique challenges.

• This is an unmet need owing to sparse data worldwide and merits exploration including in low-middle income countries like India.

Objectives

Materials and Methods

Eligibility Criteria: YBCs registered at TMH between Jan 2015-Dec 2016; curative intent; Data Lock date : 8th October 2020

Data Source : Electronic medical records, telephonic follow up

Definitions: Hormone receptor(HR) and Her2 status (ASCO/CAP guidelines), AJCC 7th - staging; Modified Bloom Richardson system -grading Event - relapse or progression (locoregional/systemic) or death due to relapse or treatment toxicity; SPSS version 25 software - statistical analysis

Results

Survival according to Stage

• Median follow up -48 (0-131) months

• Events – 488; Deaths – 168

• Median EFS – 61 months (95% CI 60.1-NA ) Median OS - 94 months (95% CI 80.1-NA )

• Overall cohort : 3-year EFS=70.7%(68.1-73.5); OS=85.4%(83.3-87.5); 5-year EFS = 59.1%(55.8-62.6); OS =79.6%(76.8-82.5)

On multivariate analysis : age at diagnosis, T and N stage, Hormone receptor status, LVI were significant factors for survival

Familial and Hereditary cancers

242(19.7%) had family history; 170 patients were registered in the Cancer genetic clinic and 20 of 36 reported had germline pathogenic BRCA mutation. Additionally 2 had BRCA -VUS, 1 each had APC/CDH-1 VUS, FANCD VUS and p53 mutation.

Propylhylamic contralateral mastectomy and risk reducing bilateral salpingo-oophorectomy were done in 6(30%) and 7(35%) patients respectively. Remaining were on intensified surveillance.

Postmenopausal symptoms, Fertility, Pregnancy

148 patients resumed menstruation;153 had significant postmenopausal symptoms (sleep disturbances -72,47.3%, forgetfulness- 57 , 37.2%, mood swings -54,35.2%, hot flushes -37,24.1%)

Adequate data available in 351; 278 counselled & 42 opted for fertility preservation with LHRH agonists; 35 wee nulliparous, 85 had 1 child; 18 were keen, 7 conceived, 5 had live births with an interval of 2-7 years post chemotherapy.

Conclusion

• The Indian YBC cohort is unique as the proportion is higher than developed world, they present with higher stage and aggressive biology.

• However, as the stage matched outcomes are comparable, awareness via national registry and early diagnosis is highly warranted.

• Menopausal symptoms and fertility issues are prevalent and demand specialized focus