PS1-09-11: Comparison of Clinicopathological Features and Prognoses in Male and Female Patients with Denovo Metastatic Breast Cancer

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Background

De novo metastatic breast cancer (MBC) presents distinct clinical challenges and accounts for a small proportion of all breast cancer cases. While extensive data exist for female patients, the characteristics and outcomes of male patients with de novo MBC remain poorly defined. Comparing clinicopathological features and prognoses between male and female patients may help improve personalized management strategies for this rare subgroup. In this study, we compared the clinicopathological features and prognoses of male and female patients diagnosed with de novo metastatic breast cancer.

Methods and Materials

This retrospective study utilized data from the Surveillance, Epidemiology, and End Results (SEER) database, including male and female patients diagnosed with de novo metastatic breast cancer, between 2000 and 2021. Demographic and clinicopathological variables were collected to compare baseline characteristics. Survival outcomes were assessed using Kaplan-Meier analysis, and multivariate Cox regression was performed to identify independent prognostic factors. Statistical analyses were conducted using SPSS version 30.0.

Results

A total of 60,590 patients met the study criteria. Of these patients, 713 (1.2%) were male. 56.1% were under 65 years of age. Pathological subtypes were HR+/HER2- (61.2%), HR+/HER2+ (15.9%), HR-/HER2- (14.3%), and HR-/HER2+ (8.6%). All patients had de novo metastatic disease. Metastatic sites were bone (64.2%), lung (30%), distant lymph node (27%), liver (24.2%), brain (7.3%), and other (18%). At the time of diagnosis, statistically significant differences were detected in patient groups in terms of age (p<0.001), marital status (p<0.001), origin (p<0.001), race (p<0.001), histologic type (p<0.001), breast cancer subtype (p<0.001), liver metastasis (p<0.001), lung metastasis (p<0.001) 5-year survival of de novo metastatic female breast cancer patients was found to be better than male patients (31.4% vs. 25.6%, p=0.036)

Conclusion

Male breast cancer is quite rare. The clinicopathological features and metastatic spread of male and female patients at diagnosis differ. Female patients were found to have a better survival rate.

Table 1. Baseline Characteristics of the Patients

Characteristic	n	%
Gender		
Male	713	1.2%
Female	59877	98.8%
Age group (years)		
<65	33999	56.1%
≥65	26591	43.9%
Race		
White	45626	75.3%
Asian or Pacific Islander	4780	7.9%
Black	9488	15.7%
Other	696	1.1%
Marital Status		
Married	26076	43.0%
Single (never married)	12846	21.2%
Widowed	10342	17.1%
Divorced	7134	11.8%
Unknown	3105	5.1%
Separated	873	1.4%
Unmarried or Domestic Partner	214	0.4%
Histological subtype		
HR+/HER2-	23646	39.0%
HR+/HER2+	6139	10.1%
HR-/HER2-	5511	9.1%
HR-/HER2+	3337	5.5%
Metastatic Sites		
Bone	27774	45.8%
Brain	3101	5.1%
Liver	10372	17.1%
Lung	12801	21.1%
Distant Lymph Node	6235	10.3%
Other	4177	6.9%
Surgery		76.5%
Yes	17940	29.6%
No	41428	68.4%
Radiotherapy		
Yes	18766	31.0%
No	951	1.6%
Chemotherapy		
Yes	34571	57.1%
No/Unknown	26019	42.9%

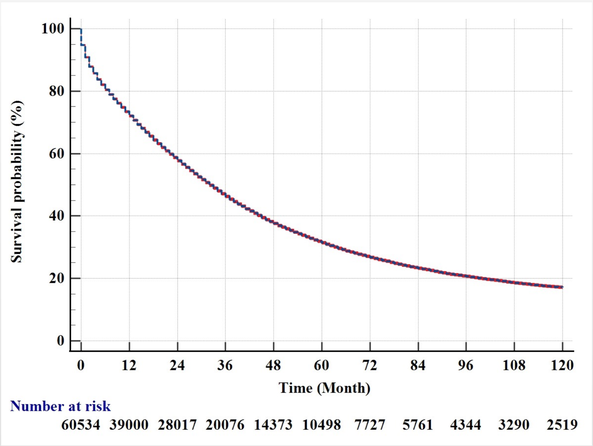


Figure 1. Overall survival of patients diagnosed with de novo metastatic breast cancer

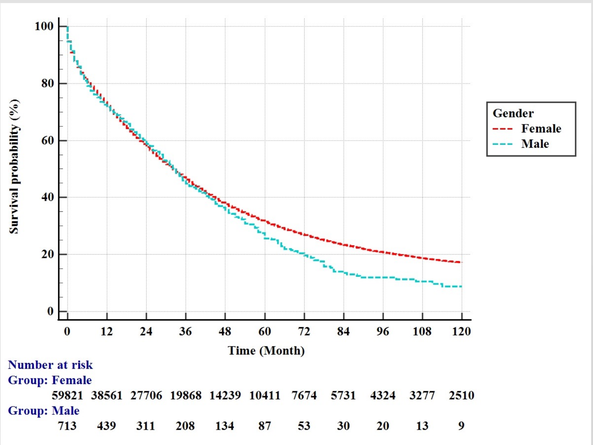


Figure 2. Gender specific overall survival of patients diagnosed with de novo metastatic breast cancer

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