

**Background:** Triple-negative breast cancer has a very high rate of recurrence and till now there is no standard of care . Because of the sensitivity of it to platinum compounds and the synergistic effect between bevacizumab and paclitaxel according to many studies

**Aim of the study :** To combine all these agents to investigate the efficacy of bevacizumab in combination with carboplatin and paclitaxel as first-line treatment in m.TNBC and to predict whom can benefit the most from this combination

**Methods :** This prospective phase two study included 54 female patients diagnosed with m.TNBC at clinical oncology department , Assuit university hospital ,Egypt. forty of them were diagnosed after adjuvant treatment and fourteen as denovo. They received bevacizumab 15 m.g/ kg + carboplatin AUC 6 + paclitaxel 175m.g/m2 every 21 day for 8 cycles then followed up till data cut off in February 2021. The primary end Point was 2 year PFS and the secondary end point was 2 year OS .

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**Results: Final evaluation** was done ; 32 patients were alive out of 54 and only 26 out of 32 remained in the study .15 ( 57.7 %) were still in CR , 2 ( 7.7%) were PD and 9 ( 34.6 %) SD .The ORR was 57.7 % and the DCR was 92.3% .

**Median PFS** at 2 years was 27 months with (95 % CI 17.019 - 36.981). By Cox regression both visceral only disease and performance status (PS) 0 had longer PFS compared to other characteristics with ( HR 0.23, P= 0.05 ) and (HR = 0.16 , P = 0.02) respectively and C index 0.77.

**The 2 year median OS** was 55 months ( 95 % CI 38.973 - 71.027 ) . Both type of presentation either denovo or after adjuvant treatment and also PS consistently affect OS (HR = 7.91, P = 0.02) for denovo patients and (HR=0.12 ,P = 0.01 ) in patients with PS 0 with C index 0.73 in cox regression model.

**Three factors** affecting final response to bevacizumab to gain either SD or CR by logistic regression test as in **table 1** :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Category** | **P-value** | **Odds**  **Ratio** | **% of correct classification if used to predict** |
| **Number of metastatic sites** | **≤ 3** | **0.02** | **3.92** | **64.8** |
| **> 3** |  |  |
| **Sites of metastasis** | **Bone only** | **0.101** | **3.20** | **70.4** |
| **Visceral** | **0.001** | **13.20** |
| **Both** |  |  |
| **ECOG-PS** | **PS 0** | **0.001** | **19.50** | **70.4** |
| **PS 1** | **0.06** | **5.00** |
| **PS 2** |  |  |

**Conclusion :** TNBC is a challenging interesting area of research to find a standard strategy for improving the patient’s survival and quality of life. We concluded that number ; sites of metastasis and PS significantly can be useful in predicting the efficacy of bevacizumab in metastatic stage in terms of response , PFS and OS .

**Disclosure:** The authors report no conflicts of interest associated with this work.