

242P - Impact of metastases directed radiation therapy on CDK4/6 inhibitors treatment for metastatic breast cancer

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BACKGROUND

Cyclin-Dependent Kinase 4/6 inhibitors (CDK4/6i) represent the standard I-II line for hormonal receptors positive/human epidermal growth factor receptor 2 negative metastatic breast cancer (MBC) patients.

Metastases directed radiation therapy (RT) for these patients is commonly used with **palliative** or **ablative intent** during systemic treatment. However, there is still a lack of robust data on the safety concerning RT during CDK4/6i treatment.

RESULTS

We analyzed a series of **133 patients**. We recorded the following events: 127 any toxicity (95.5%), 91 toxicity >G2 (68.4%), 62 CDK4/6i dose reductions (46.6%), and five treatment discontinuations (3.8%). RT was prescribed in 59 cases (16.5% sequential, 27.9% concomitant) while 74 patients did not receive RT (55.6%). Postmenopausal patients experienced significantly higher toxicity >G2 (OR 4.08; 95%CI 1.58-10.56; p=0.005). **Intent of RT (palliative vs ablative) and site of RT (bone vs visceral) did not impact on primary outcomes** of the study.

High conformal RT techniques IMRT/CyberKnife (as compared to 2D/3D techniques) were associated to higher toxicity >G2 (OR 8.15; 95%CI 0.97-68.38; p=0.041). Overall **RT (both concomitant and sequential) did not significantly impact on any of primary outcomes** of the study (**Table**).

METHODS

Primary outcomes of our study were **impact of RT on any toxicity greater than grade 2 (>G2), any toxicity (any grade), CDK4/6i dose reduction, CDK4/6i treatment discontinuation**.

Analysis by simple cross-tables with p-values from chi-square test and logistic analysis to confirm emerged associations were performed.

Outcomes	Sequential RT (n=22) vs Concomitant RT (n=37) vs No RT (n=74)	RT (n=59) vs No RT (n=74)
Any toxicity >G2	0.54	0.45
Any toxicity	0.23	0.69
CDK4/6i dose reduction	0.83	1.0
CDK4/6i discontinuation	0.13	0.066

Table. Association between RT administration (sequential or concomitant) and outcomes

CONCLUSIONS

RT for the treatment of I-II line MBC patients receiving a CDK4/6i did not significantly impact on treatment safety profile, CDK4/6i dose reduction and discontinuation.



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No conflict of interest to declare related to the presented work. Contacts at icro.meattini@unifi.it