

## IMPACT OF METFORMIN ON METASTASES IN PATIENTS WITH BREAST CANCER AND TYPE 2 DIABETES

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### AIMS

To analyze the impact of glucose-lowering drugs on metastases in women living in Germany who have been diagnosed with breast cancer (BC) and type 2 diabetes mellitus (T2DM).

### METHODS

Women initially diagnosed with BC (2004-2013) were identified in the IMS® Disease Analyzer database. Patients with a documentation of metastases at index date or during the following six months were excluded. We selected T2DM women between 40 and 90 years of age who received glucose-lowering therapy (metformin, sulfonylureas, incretins, insulins, other medications). The primary outcome was the diagnosis of metastases recorded in the database between the index date and the end of follow-up. A multivariate Cox regression model was used to predict BC metastases on the basis of patient characteristics and glucose-lowering medication.

### RESULTS

A total of 4,953 women with BC and diabetes were included in the study. The mean age was 71.4 years and 4.7% of patients had private health insurance coverage. Mean HbA1C was 7.1% and mean BMI was

30.6 kg/m<sup>2</sup>. After 5 years follow-up, 9.2% of patients with metformin and 12.3% of patients without exhibited metastases (log-rank p-value=0.011), whereas 6.2% of patients with incretins and 11.0% of patients without incretins exhibited metastases (both log-rank p-values <0.001). Metformin (HR=0.73, 95% CI: 0.58-0.92) and incretins (HR=0.62, 95% CI: 0.45-0.84) both significantly decreased the risk of metastases. None of the other variables were significantly associated with diagnosis of metastases.

### CONCLUSION

The use of metformin and incretins in women with T2DM and BC may reduce the risk of metastases.

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Thank you for your interest!