

breast cancer, locally advanced and metastatic

302P Metformin in neoadjuvant systemic treatment in breast cancer patients with metabolic syndrome

R. Liubota¹, A. Zotov¹, R. Vereshchako¹, V. Cheshuk¹, N. Anikusko², I. Liubota³
¹Department of Oncology, O.O Bogomolets National Medical University Kiev, Kiev, Ukraine, ²Surgery, Kyiv City Clinical Oncological Centre, Kiev, Ukraine, ³Dispensary, Kyiv City Clinical Oncological Centre, Kiev, Ukraine

Background: The aim of this prospective randomized trial was investigate the influence of metformin on the effectiveness of neoadjuvant systemic anticancer therapy (NAST) breast cancer in patients with metabolic syndrome (MS).

Methods: The study included 54 patients (aged 46 to 77 years) who received neoadjuvant systemic treatment for stage II-III breast cancer, in the clinic of oncology National medical university named after O.O. Bogomolets based in Kiev municipal clinical oncological centre between 2010-2014. All patients was diagnosed MS

according to the IDF criteria and were compared by 2 groups group 1 included 36 patients with MS and BC who did not take metformin during NAST, and group 2 - 18 metabolic syndrome patients with breast cancer taking metformin with NAST. Clinical and pathological response rates were compared between the two groups using the fourfold tables analysis method.

Results: Clinical complete response (CR) was identified in 6% patients from group 1 and in 28% patients from group 2. Clinical benefit response of treatment (CR + PR) was achieved in 67% of patients treated with metformin compared to 25% patients from group 1. In 53% of patients who were not taking metformin was observed stabile disease (SD). The rate of pathological complete response (pCR) was 31% in the metformin group and 6% in the nonmetformin group.

Conclusions: Appointment metformin and neoadjuvant systemic anticancer therapy breast cancer patients with metabolic syndrome have a higher clinical and pathological CR rate and clinical benefit response of treatment than BC patient with MS not receiving metformin. This study demonstrated the potential of metformin as an antitumor agent in breast cancer patients with metabolic syndrome.

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