## **Triple-negative breast cancer**



RELATION BETWEEN BMI AND MORPHOLOGICAL CHARACTERISTICS TRIPLE-NEGATIVE BREAST CANCER

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**Background:** The aim of this retrospective analysis was to investigate the morphological features of triple-negative breast cancer (TNBC) patients with different body mass index (BMI).

**Patients and methods:** The study included 110 patients with TNBC aged 25 to 76  $(54.6\pm1)$  years old, who sought medical care in clinic of oncology National Medical University named after A.A. Bogomolets in 2005-2006. A morphological characteristics of TNBC was evaluated in relation to BMI.

**Results:** According to WHO criteria women with TNBC were divided into the 3 groups: group 1-27 patients (24%) were normal/underweight (BMI <25 kg/m²), group 2-47 patients (43%) were overweight (BMI from 25 to 29.9 kg/m²), and group 3-36 patients (33%) were obese (BMI  $\geq 30$  kg/m²). In postmenopausal TNBC is diagnosed in significantly more patients with obese, and in premenopausal in patients who have overweight. Lobular TNBC was significantly more frequent in patients in with obese (25%) and ductal - in patients with group 1 and 2 in 74% and 77% of cases. Low histological grade (G3, G4) occur in patients with overweight and obese (32% and 42%, respectively). Lymph node metastases were often (for 13%) in patients with obese.

**Conclusions:** Our study shows an association between high BMI and poor prognostic morphological characteristics in patients with TNBC.

Disclosure: All authors have declared no conflicts of interest.