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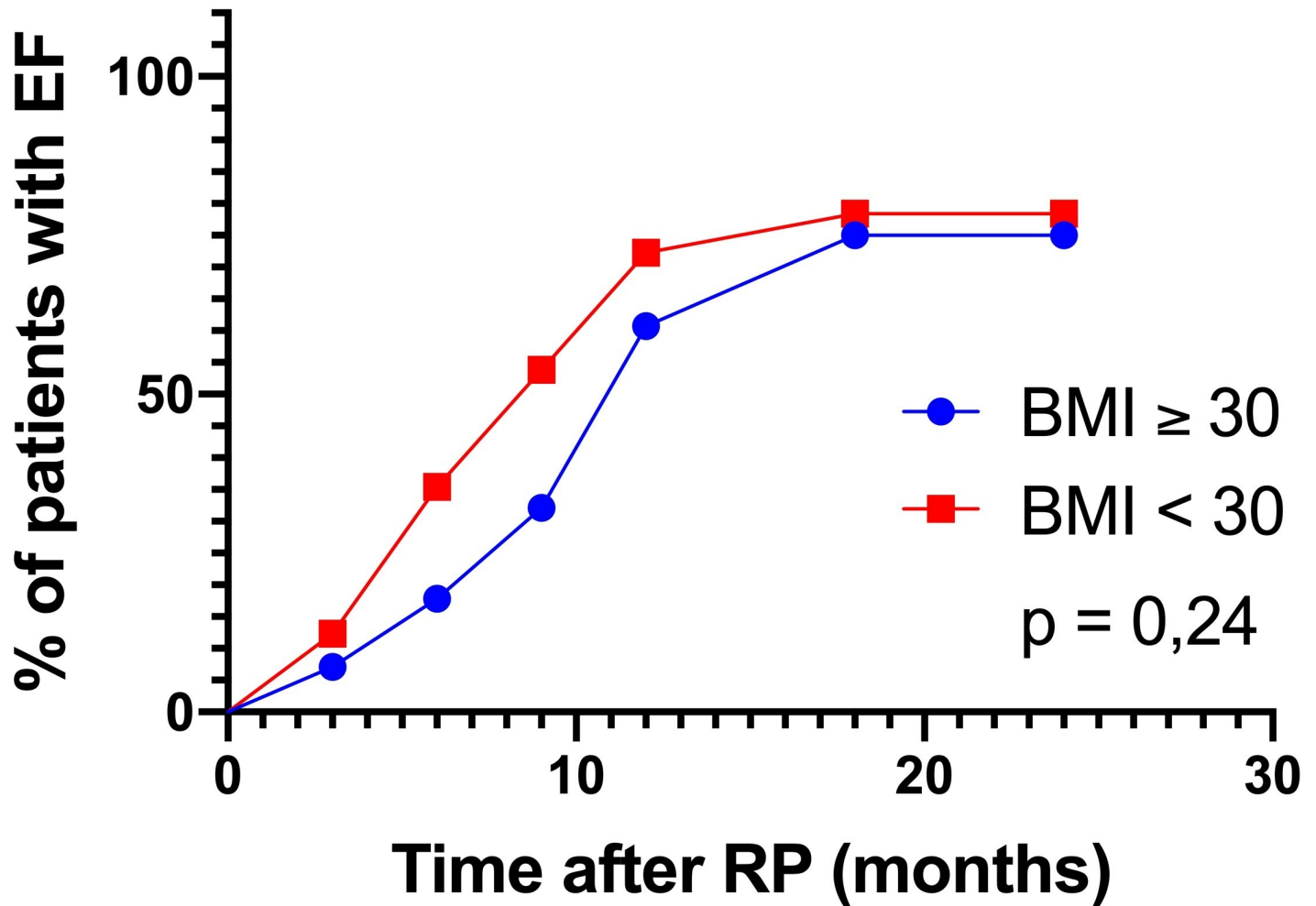
Introduction & Objectives: According to several studies, an increased body mass index (BMI) may be one of the unfavorable prognostic factors of prostate cancer (PC) associated with lower oncological and functional outcomes of radical prostatectomy (RP). The aim of this study was to evaluate pathomorphological characteristics, recurrence-free survival, and restoration of erectile function (EF) after RP with nerve-sparing technique (NST) in obese patients.

Materials & Methods: The study group consisted of 91 patients with BMI ≥ 30 kg/m², the control group consisted of 356 patients with BMI < 30 kg/m² who underwent RP with unilateral or bilateral NST from January 2012 to December 2019. A comparative analysis of pathomorphological results, the rate of complications, recurrence-free survival, and the dynamics of EF restoration in both groups was performed.

Results: Obese patients had a larger prostate volume, a higher score for the International Prostate Symptom Score (IPSS) questionnaire. Unilateral and bilateral NST was used in both groups in equal proportions: 50.5% and 49.5% in the group with BMI ≥ 30 and 51.4% and 48.6% in the group with BMI < 30 ($p = 0.88$) There were no significant differences between the groups in the rate of adverse pathomorphological characteristics, serious postoperative complications and the volume of intraoperative blood loss. The five-year recurrence-free survival after RP was 93.1% in the BMI group ≥ 30 and 95.1% in the BMI group < 30 ($p = 0.55$). The total rate of EF recovery after RP with NST after 24 months was 75% and 78.5% ($p = 0.24$). The restoration of EF in obese patients was slower: sufficient for sexual intercourse EF after 6 and 12 months was observed in 17.9% and 32.1% versus 35.4% and 53.8% in the group with BMI < 30 , and the mean time to recovery was 10.9 (± 1) and 8.6 (± 0.6) months, respectively

(p = 0.04).

EF recovery



Conclusions: Obesity does not affect the pathomorphological and oncological results of RP with NST. EF recovery in patients with a BMI of ≥ 30 is slowed down, however, 24 months after surgery, the results are comparable with the potency level in patients with a BMI < 30. The data obtained may be of value in counseling and planning surgical intervention in obese patients with PC.