59 Comparative evaluation of hemostasis methods in open prostatectomy and large BPH

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Introduction & Objectives: Benign prostatic hyperplasia (BPH) is one of the most common diseases of the genitourinary system in men. According to EAU, along with minimally invasive methods, open prostatectomy (adenomectomy) remains an important method of surgical treatment with a large amount of prostate. Bleeding, the frequency of which in the early postoperative period ranges from 0.2% to 10%, is the most common complication of adenomectomy. The aim of the work was to evaluate methods for reducing blood loss during open adenomectomy.

Materials & Methods: In the period from 01.2016 to 01.2019, we conducted a prospective, randomized clinical trial that included 177 patients with BPH with a volume of more than 100 cm3. All patients underwent open adenomectomy. Random group formed 2 groups. In the first group (90 patients), temporary hemostasis was performed with a tampon impregnated with the GAMASTAT preparation (20.3 + 3.5 ml) set in place of the removed prostate for 2 minutes. The second group (87 patients) consisted of patients to whom hemostasis was performed by flashing the bladder neck with a PGA thread and temporary gauze bedding. Intraoperative blood loss was taken into account in terms of blood volume on the surgical material and in the vacuum reservoir. Determination of hematocrit in drainage fluid allowed us to determine the magnitude of postoperative blood loss.

Results: The patients of the first group were 69.4 + 7.1 years old; IPSS - 27.4 + 5.5; prostate volume - 116.4 + 36.2 cm3; PSA tot. -7.3 ng / ml; the duration of the operation is 74.5 + 21.6 minutes. The patients of the second group are 70.3 + 7.4 years old; IPSS - 29.5 + 2.8 points; the volume of the prostate is 112.7 + 42.2 cm3. PSA tot. - 8.1 ng / ml; operation time - 76.9 + 19.9 minutes. Before the operation, hemoglobin in groups 1 and 2 was 146 + 12g / l and 145 + 16g / l, respectively, on day 1 after surgery - 129 + 15g / l and 119 + 17 g / l, on day 2 - 122 + 15 g / l and 106 + 15g / l. Red blood cells before surgery in group 1 - 4.76 + 0.45 h1012, in group 2 -4.73 + 0.64x1012, and on the first days of the postoperative period - 4.21 + 0.57x1012 and 3.93 + 0, 60x1012, respectively, on the second day - 4.02 + 0.58x1012 and 3.42 + 0.60x1012. Hematocrit decreased significantly to 2 days in group 2 of patients from 43.4 + 4.8 to 31.4 + 4.3%. In group 1, the hematocrit decreased slightly from 43.6 + 3.8 to 36.5 + 4.4%. In the first group, intraoperative blood loss was 124.9 + 66.8 ml; postoperative (1 and 2 days) - 117.5 + 78.1 ml; total blood loss - 242.3 + 130.4 ml. In the second group, blood loss during surgery - 223.3 + 73.7 ml; postoperative - 281.8 + 127.5 ml; total blood loss - 505.2 + 186.6 ml. The frequency of transfusion of blood components after surgery in the first group - 5.5%, in the second - 17.2%.

Conclusions: Thus, the use of GAMASTAT reduces blood loss after open adenomectomy by 2 times, and the frequency of blood transfusions - by 3 times.