

CLINICAL OUTCOMES AND COST REDUCTION IN SURGICAL TREATMENT OF HEMORRHOIDS USING ULTRASONIC DISSECTION

Sharipov F.A.
Samarkand State Medical University

Relevance. Conventional hemorrhoidectomy is associated with significant postoperative pain, prolonged wound healing and a long period of disability, all of which increase the overall cost of treatment. Ultrasonic dissection (the harmonic scalpel) provides low-temperature coagulation with minimal lateral thermal spread; however, the balance between its higher consumable cost and the potential savings from shorter hospital stay and faster recovery requires evaluation.

Material and methods. Clinical and economic outcomes were compared in 124 patients with grade III–IV chronic hemorrhoids: 64 patients operated on with ultrasonic dissection (main group) and 60 patients who underwent conventional Milligan–Morgan hemorrhoidectomy (control group). Operative time, intraoperative blood loss, postoperative pain, complications, hospital stay, return to work and total treatment cost were analyzed.

Results and discussion. Ultrasonic dissection significantly reduced operative time (18.4 ± 4.2 vs 27.6 ± 5.8 min) and intraoperative blood loss (8.2 ± 2.4 vs 24.6 ± 6.8 mL). Postoperative pain on day 1 was lower (VAS 3.2 ± 0.8 vs 6.4 ± 1.2), as were the analgesic requirement (2.4 vs 5.6 days) and the overall complication rate (7.8% vs 21.7%). Hospital stay decreased from 3.4 ± 0.8 to 1.8 ± 0.6 days and return to work from 21.8 ± 3.4 to 12.4 ± 2.6 days. Although the per-procedure consumable cost was higher, the total cost of the treatment episode was reduced by approximately 22% owing to shorter hospitalization, lower analgesic use and earlier return to work.

Conclusion. Ultrasonic dissection in the surgical treatment of hemorrhoids improves clinical outcomes — reducing pain, complications and recovery time — and, despite higher consumable costs, lowers the overall cost of the treatment episode. It can be recommended as a cost-effective minimally invasive option for grade III–IV hemorrhoids.