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## Sphincter-Sparing Techniques in the Treatment of Rectal Fistulas in Diabetic Patients

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**Relevance.** Chronic rectal fistulas in patients with diabetes mellitus (DM) represent a challenging clinical scenario due to delayed wound healing, increased risk of infection, and higher recurrence rates. These complications are associated with microangiopathy, neuropathy, and impaired tissue regeneration characteristic of diabetes. Traditional surgical techniques such as fistulotomy or fistulectomy do not always yield satisfactory outcomes in this category of patients, which necessitates an optimized treatment approach.

**Aim of the study.** To improve short-term and long-term outcomes of surgical treatment for rectal fistulas in diabetic patients by implementing sphincter-sparing techniques in combination with preoperative glycemic optimization.

**Materials and methods.** A comparative clinical study was conducted on 114 patients with cryptoglandular rectal fistulas and comorbid diabetes mellitus. The main group (n = 59) underwent surgical treatment using sphincter-sparing techniques (LIFT, advancement flap, etc.) along with mandatory preoperative blood glucose compensation. The control group (n = 55) received traditional treatment methods (fistulotomy/fistulectomy) without specific endocrinological management. Patients were followed for one year. Outcomes included wound healing time, postoperative complications, recurrence rates, and anal continence. Statistical analysis was performed using the  $\chi^2$  test and Student's t-test.

**Results and discussion.** The average healing time was  $24.5 \pm 4.2$  days in the main group versus  $36.8 \pm 5.7$  days in the control group ( $p < 0.01$ ). Postoperative complications occurred in 10.2% of patients in the main group and in 21.8% of the control group ( $p < 0.05$ ). Fistula recurrence within 12 months was observed in 3 (5.1%) patients in the main group and in 9 (16.4%) patients in the control group ( $p < 0.05$ ). No new cases of incontinence were noted in the main group, while 2 patients (3.6%) in the control group developed mild fecal incontinence. These findings indicate the clinical superiority of a combined strategy involving glycemic control and sphincter-preserving surgery.

**Conclusions.** The combination of sphincter-sparing surgical techniques with preoperative glycemic optimization in patients with diabetes mellitus significantly improves treatment outcomes for rectal fistulas. This approach reduces recurrence rates, accelerates healing, and prevents functional disorders of the anal sphincter. It is recommended for wide adoption in coloproctologic surgical practice.