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#### Visceral and General Surgery

## 406 THE ROLE OF ELECTROPHORESIS IN THE TREATMENT OF CHRONIC RECTAL FISSURES

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### **ABSTRACT TITLE:** THE ROLE OF ELECTROPHORESIS IN THE TREATMENT OF CHRONIC RECTAL FISSURES

**BACKGROUND:** Intratissue electrophoresis in combination with medical agents is widely used in medical practice. The essence of the method is in the combined action of direct current (DC), which is an active therapeutic factor, and medicines which are administered directly into the tissues of pathological focus by means of DC, creating rather high concentration in this place without spreading all over the organism. Direct electric magnetic field causes various physical-chemical, metabolic and cellular-tissue reactions, against the background of which medical action acquires a number of peculiarities and advantages as compared with traditional treatment. Galvanic current has a positive effect on the vital activity of the tissues in the field of flux and increases their susceptibility to the action of medical agents. DC irritates receptors of the skin and mucous membranes as well, resulting in a number of general and topical reactions of the body. Blood and lymph circulation, tissue metabolism and rebuilding processes improve, painful sensation decreases.

**OBJECTIVE:** to improve the results of treatment of patients with chronic anal fissures, reduce the number of complications after surgery by means of intratissue electrophoresis.

**METHODS:** Intratissue electrophoresis with "Dioxyzol" gel by means of the device "Potok-1" was conducted before and after surgery during 5 days with electric power 0,025 mA/cm2 for 60 minutes.

**RESULTS:** 31 patients with chronic anal fissures aged from 21 to 72 were treated in this way, 6 of them refused from further surgery due to recovery. 25 patients underwent reconstructive-plastic surgery elaborated by the Department of Surgery, who were subjected to galvanization with "Dioxyzol" gel after operation. The number of complications after surgery decreased on 26±0.2% as compared with the control group of patients who were treated without electrophoresis.

**CONCLUSION:** Application of intratissue electrophoresis with "Dioxyzol" gel in the combined treatment of complicated anal fissures allows improving the results of surgery and reducing complications after surgery. Galvanic current analgesia leads to elimination of sphincter spasm and improves the regeneration processes in the area of anal fissure promoting quick healing. The method introduced is rather simple and available without any age limits and contraindications; it can be applied outpatient and in surgical departments of various levels.

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