

## **The Impact of the ERAS Protocol on Laparoscopic Gastric Cancer Surgery in the West. A Retrospective Study**

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### **ABSTRACT**

**Background:** We determined the feasibility of the ERAS protocol in laparoscopically operated patients for early and advanced gastric cancer.

**Methods:** Fifty-eight patients were included in the study (19 in the ERAS and 39 in the CC group). In both groups, only laparoscopic technique was used. Postoperative recovery parameters and serum CRP levels were compared.

**Results:** The CC group had significantly more complications (0% in the ERAS vs. 25.6% in the CC group;  $p=0.018$ ). Patients in the ERAS group had a significantly shorter hospital stay ( $8.5\pm 2$  days in the ERAS vs.  $11.3\pm 4$  days in the CC;  $p=0.002$ ) and significantly lower pain scores on days one to three compared to the CC. The total medical cost was higher in the ERAS group ( $p<0.0001$ ). The multivariate logistic regression model identified shorter hospital stay (HR: 0.567; 95% CI: 0.326-0.985;  $p=0.044$ ), and lower pain scores on day one (HR: 0.12; 95% CI: 0.022-0.662;  $p=0.015$ ) and two (HR: 0.134; 95% CI: 0.026-0.693;  $p=0.017$ ), as significantly related to the ERAS protocol.

**Conclusion:** ERAS protocol is feasible for laparoscopic gastrectomy. It reduces postoperative pain on days one and two which allows faster mobilization and earlier discharge.

**Key words:** ERAS protocol, laparoscopy, gastric cancer