

Oncologic impact of anastomotic leakage in rectal cancer surgery according to the use of fibrin glue: case-control study using propensity score matching method.

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Abstract:

BACKGROUND: The oncologic impact of anastomotic leakage after rectal cancer surgery remains controversial.

METHODS: Between January 1999 and December 2010, 1,148 patients with rectal cancer who underwent curative surgery with sphincter preservation were retrospectively reviewed. Using the propensity score matching method, 328 patients with fibrin glue were matched to 328 patients without fibrin glue, and oncologic outcomes were compared in the matched groups.

RESULTS: Anastomotic leakage was diagnosed in 76 patients (6.6%). On multivariate analysis, fibrin glue was the independent predictor of prevention of anastomotic leakage. In the 656 matched groups, patients with anastomotic leakage had significantly worse 5-year local recurrence-free survival and disease-free survival than those without leakage. Multivariate analysis confirmed that anastomotic leakage was an independent prognostic factor of both local recurrence and disease-free survival, but the use of fibrin glue was not associated with the long-term outcomes when controlling for confounders.

CONCLUSIONS: Anastomotic leakage is a major independent prognostic factor for long-term outcomes. Fibrin glue has a protective effect of anastomosis, without oncologic advantages.

