Oncologic impact of anastomotic leakage in rectal cancer surgery: The role of fibrin glue.

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Abstract:

Purpose: There is still controversy about the oncologic impact of anastomotic leakage after rectal cancer surgery. This study examined the influence of anastomotic leakages on oncologic outcome. The role of fibrin glue as an anastomotic sealant was also delineated. Methods: Between January 1999 and December 2010, patients with rectal cancer who underwent curative surgery were retrospectively reviewed. Predictive factor for leakage and oncologic outcomes were evaluated. Results: In total, 1148 patients were included, with 46.9 months median follow-up. Anastomotic leakage was diagnosed in 76 (6.6%). Multivariable logistic regression analysis indicated fibrin glue was associated with a lower rate of anastomotic leakage (Odds ratio: 1.9, 95% confidence interval: 1.0-3.6, p = 0.038). The prevalence of mortality and local recurrence were not significantly higher in patients diagnosed with anastomotic leakage. In multivariate analysis, patients with anastomotic leakage had a significantly worse 5-year disease-free survival rate and overall survival than those without anastomotic leakage (hazard ratio: 1.9, 95% confidence interval: 1.0-3.5, p = 0.036 and hazard ratio: 3.7, 95% confidence interval: 1.7-7.9, p < 0.001, respectively) and fibrin glue was not associated with local recurrence, disease-free survival and overall survival. Conclusions: Anastomotic leakage was a major independent prognostic factor for long-term survival. Fibrin glue has a protective effect of anastomosis, but no oncologic advantage.