



# Letter to the Editor: Bile Leak Reduction with Laparoscopic Versus Open Liver Resection: A Multi-institutional Propensity Score-Adjusted Multivariable Regression Analysis

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Dear Editor,

We have read with great interest the article by Smith and co-workers [1], which focuses on decreases in the incidence of bile leaks after a minimally invasive approach to liver resection. After hepatectomy, bile leakage remains the most common cause of operative morbidity, increased costs, and disability. In the work by Smith et al., no bile leak testing was performed.

In Table 1 of the manuscript [1], the authors report the following proportions of patients who experienced bile duct leakage: 26/789 after open surgery and 13/599 after laparoscopic surgery. These data are acceptable; however, the readmission rates of 97/789 after open surgery and 39/599 after laparoscopic surgery are difficult to understand, especially if all or part of these readmissions were related to bile leaks. The authors explain that laparoscopic liver resection is performed on a more limited scale; however, the extent of resection is not a limiting factor in a bile duct leak. Furthermore, ERCP is not suitable as a treatment for these patients, who already have a complication.

The routine use of bile leakage tests, such as the White test [2, 3], air leak test, and methylene blue test, improves the detection of open bile ducts, which are not easily displayed on the surface of the transection, and consequently, allows their intraoperative repair.

As evidenced from the literature, systematic use of bile leakage testing has been associated with a significant

decrease in the incidence and severity of postoperative bile leakage complications [4].

Furthermore, the authors refer in their manuscript to the use of fibrin glue as a method to reduce the incidence of bile fistulas, although it has been proven that the use of fibrin glue does not prevent bile fistulas [5].

## References

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