

Pure Cut vs Endocut for Biliary Sphincterotomy

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The most common adverse event associated with Endoscopic Retrograde Cholangiopancreatography (ERCP) is post-ERCP pancreatitis. Post-ERCP pancreatitis may result from thermal injury sustained during biliary sphincterotomy in a significant proportion of the cases. The type of current (whether pure cut current or a blend of cutting and coagulation cycles) used may have an impact on the degree of thermal injury caused and therefore on the cases of post-ERCP pancreatitis. There is a paucity of studies evaluating this issue however this is a crucial topic to discuss in order to reduce ERCP related complications.

In 2023, a randomized controlled trial conducted recently randomized patients undergoing ERCP to receive pure cut or Endocut for biliary sphincterotomy with the primary outcome being incidence of post-ERCP pancreatitis [1]. Overall, post-ERCP pancreatitis rate was 4%. Incidence of post-ERCP pancreatitis was significantly higher in the Endocut group at 5.8% as compared to the pure cut group at 2.2%. Intraprocedural bleeding was more notable in the pure cut group but hemostasis was achieved in all cases endoscopically during ERCP. There was no difference in perforation or infection rates between the two groups. This study concluded that the thermal injury endured during Endocut induced biliary sphincterotomy caused increased thermal injury as compared to pure cut and therefore higher incidence of post-ERCP pancreatitis.

Similar results have been yielded from another prospective study as well [2]. But there is not enough evidence to confidently back either approach alone. Coagulation power associated with Endocut causes much less intraprocedural bleeding as compared to pure cut. So Endocut will be a preferred approach in patients at high risk of bleeding. In 2021, a systematic review and meta-analysis assessed the safety profile of both modalities and found that the higher cases of post-ERCP pancreatitis were not statistically significant. Therefore, using pure cut routinely with

low effect was the best strategy in patients who were not at a high risk of bleeding.

More prospective trials to compare these two modalities head to head will be required to recommend either strategy alone in the near future. For now, this decision will have to be individualized based on each patient [3].

References

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