

Endoscopic radiofrequency ablation for ingrowth occlusion following bilateral metal stenting for malignant hilar biliary obstruction

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ABSTRACT

BACKGROUND AND AIM

Endoscopic biliary radiofrequency ablation (RFA) may be an option for the treatment of ingrowth occlusion after metal stent (MS) deployment; however, its utility remains uncertain. This study aimed to examine the feasibility of RFA for the palliation of ingrowth after bilateral MS placement in patients with malignant hilar biliary obstruction.

METHODS

The study outcomes included clinical success, recurrent biliary obstruction (RBO), and adverse events (AE) besides RBO associated with reintervention (RI) for ingrowth occlusion. These parameters were compared between patients who underwent RI using RFA (RFA group) and control cohort of patients who underwent RI using two plastic stents placement (PS group).

RESULTS

A total of 50 patients met the eligibility criteria for inclusion in this study. The clinical success rate was significantly lower in the RFA group compared to the PS group (71.4% versus 100%, $P = 0.006$). There were no significant group differences in the rates of early and late AEs. The incidence rate of RBO after RI did not differ significantly between the RFA group and PS group at 45.0% and 61.9%, respectively ($P = 0.354$), while the median time to RBO was significantly longer in the RFA group (163 days versus 51 days, $P < 0.001$).

CONCLUSION

Endoscopic biliary RFA elicited promising results, with good long-term stent patency and without the requirement of any additional stent placement, for the palliation of ingrowth occlusion after bilateral MS placement. However, the clinical success rate was insufficient, necessitating improvements in the future.