

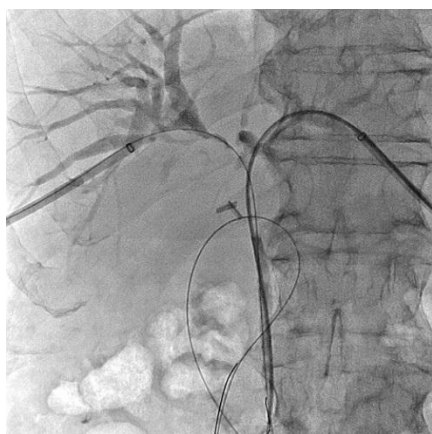
Percutaneous endoluminal RFA&stenting for the treatment of inoperable malignant biliary obstruction.

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Objective: Inoperable biliary stricture percutaneous management by endobiliary ablation, followed by metal stent implantation, is presented.

Material and methods: 427 biliary recanalization procedures in total were performed to 329 inoperable malignant stricture patients (CCC - 110, pancreatic tumor - 87, Liver metastasis - 60, HCC - 30, Gallbladder tumor - 24, papilla of Vater tumor - 10, metastasis in pancreas - 5, leukemia-lymphoma - 3). On primary recanalization single procedure was performed in 269 cases; in intrahepatic stricture cases double procedure was performed in 53 cases (106 interventions), triple – 6 patients(18 interventions) and quadruple – in 1 case (4 procedures). Secondary (repeated) RFA&stenting because of tumor stent ingrowth or overgrowth was performed in 30 cases.

RF was performed applying 15Watts for 2 minutes using 8 Fr diameter bipolar endoluminal RF device, positioned using guidewire technique via percutaneous biliary drainage track. 8 to 10 mm diameter metal stent implantation was performed using conventional guidewire technique. Safety drainage catheter was repositioned in order to maintain access for follow-up.



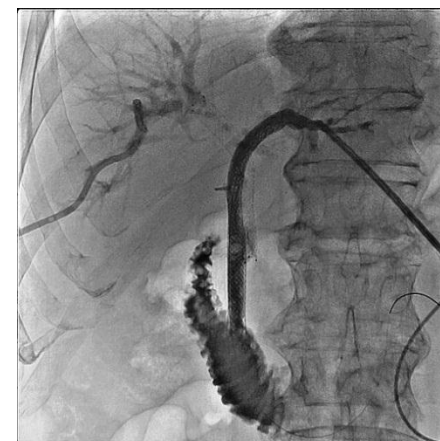
Bilateral biliary malignant stricture. Bilaterally wires are conducted across the strictured segments



Right side biliary stricture processing by bipolar RF device (arrows)



Right side finished – stent has been implanted. Left duct stricture is being processed by RF device (arrows)



Contrast injection from left side shows biliary patency restoration

Results: Biliary recanalization was completed in 9 cases (2.3 %) of primary and in 5 cases (16.7 %) of secondary recanalization patients. Clinical result has been achieved in all completed cases. 46 (14%) patients generated stent occlusion in the period of 3 to 14 months after primary procedure requiring repeated drainage; 30 of them underwent secondary recanalization attempt. There was no 30 day mortality, vessel damage or hemorrhage following biliary RFA&stenting. Post-RF ablation CBD wall damage was revealed in 7 cases; post-RF stent implantation and keeping the repositioned drain open enabled to manage the problem in all cases

CONCLUSIONS. Endoluminal RFA&stenting is safe and effective in biliary recanalization; patients with inoperable malignant biliary stricture benefit not only from partial killing potential of bile duct obstructing tumor, but from RF mediated systemic antitumor immune response also.