

## **Ablating challenging liver lesions: how to get there?**

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**BACKGROUND:** A small percentage of patients with liver neoplasms are candidates to surgery. Ablative therapies are effective in selected cases. Benefits include low morbidity and performance on outpatient basis. Proximity to capsule, vessels, gall bladder and diaphragm may limit their safety and effectiveness.

**HYPOTHESIS:** Protective techniques such as hydrodissection, cholecystostomy associated with continuous biliary irrigation and induced pneumothorax are safe, effective and low cost options to prevent local injuries in ablative treatment of challenging hepatic lesions.

**METHODS:** Two cases which protection techniques were performed prior hepatic radiofrequency ablation will be described: A 60-year-old patient presented with hepatocellular carcinoma in the liver dome. A transpulmonary access was considered the best alternative. Because of its risks, such as pneumothorax and hemothorax, an artificially induced pneumothorax was performed. A 48 years old female patient presented with two metastatic subcapsular hepatic nodules neighbouring the gallbladder. To protect it from thermal injury, a cholecystostomy was performed followed by continuous irrigation with cooled solution. Another concern was their proximity to the abdominal wall and to increase this distance, a percutaneous hydrodissection with dextrose and contrast was performed.

**RESULTS:** Both procedures were safely performed. Tomographic images immediately after and follow-up MRI two months later showed adequate ablation zone with no signs of complications.