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P207

Percutaneous Ablative Treatment of Renal Tumors in a Solitary Kidney: A Single-Center Experience

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Objectives: To evaluate the safety, efficacy, functional outcomes, and local tumor control of ablation procedures for the treatment of renal T1a and T1b lesions in a solitary kidney. **Methods:** Sixty percutaneous ablative procedures of renal T1a and T1b lesions, in 25 patients with solitary kidney, were retrospectively analyzed: 26 (43.3%) procedures with radiofrequency ablation (RFA), 26 (43.3%) with cryoablation (CRA), and 8 (13.4%) with microwave ablation (MWA). Biopsy was performed for all the lesions. Efficacy of the treatment was evaluated as the absence of residual tumor immediately and on the 1 month after ablation. The secondary outcomes of interest included complications rate, disease-free survival (DFS), cancer-specific survival (CSS), overall survival (OS), and renal function. The correlation between tumor characteristics and the three treatment groups was conducted using Kruskal–Wallis test. The same test was also used to evaluate the correlation among DFS, CSS, OS, and renal function and the three treatment groups. **Results:** The mean age of the patients was 65.6 years (54–88 years); the mean tumor size was 19.3 mm (6–55). Fifty-nine lesions (96.7%) were T1a and two (3.3%) T1b. The mean RENAL nephrometry score was 5.5 (range, 4.0–10.0). Analyzing all the tumor characteristics among the three groups of treatments, lesion dimensions and the RENAL score significantly correlated with the procedural employed method with a $P < 0.01$, respectively. The treatment was effective in 96.7% of cases, with periprocedural major complications in only three patients (5%). In 1-year follow-up, 10 recurrences (16.7%) were documented: four (15.4%) for lesions treated with RFA, one (12.5%) with MWA, and five (19.2%) with CRA ($P > 0.05$). All recurrences were retreated with a consequent local tumor control. Analysis of renal function showed no significant changes between pre- and post-ablation creatinine levels. The only significant predictor of DFS in the multivariate analysis was the histotype, with a higher recurrence rate in RCC ($P < 0.05$). **Conclusion:** Our study found no significant differences in complications, renal function outcomes, and oncologic outcomes between the three ablative procedures for patients with a tumor in a solitary kidney. Patient selection, based on the tumor characteristics, remains crucial for the choice of the type of treatment.

P208

Percutaneous Insertion of Biliary Metallic Stent in Patients with Malignant Duodenobiliary Obstruction: Outcomes and Factors Influencing Biliary Stent Patency

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Objectives: To investigate the technical and clinical efficacy of the percutaneous insertion of a biliary metallic stent and to identify the factors associated with biliary stent dysfunction in patients with malignant duodenobiliary obstruction. **Methods:** From April 2007 to December 2018, the medial records of 70 patients (39 men, 31 women; mean age, 63 years; range, 38–90 years) with malignant duodenobiliary obstruction were retrospectively reviewed. Duodenal stent insertion was performed either fluoroscopically ($n = 38$) or endoscopically ($n = 32$) using covered ($n = 52$) or uncovered stents ($n = 18$). Variables found to be significant by univariate log-rank analysis ($P < 0.2$) were considered candidate variables for multiple Cox's proportional hazard model. **Results:** The biliary stents were successfully placed in all 70 patients (uncovered stents [$n = 7$], covered stent [$n = 33$], covered stent with additional covered stent [$n = 13$], and covered stent with long duodenal-covered extension [$n = 17$]). Biliary stent insertion with subsequent duodenal stent insertion was performed in 33 patients, and duodenal stent insertion with subsequent biliary stent insertion was performed in 37 patients. Successful internal drainage was achieved in 60 (85.7%) of 70 patients. The median patient survival and stent patency time were 107 days (95% confidence interval [CI], 78–135 days) and 270 days (95% CI, 95–444 days). Biliary stent dysfunction was observed in 24 (34.3%) of 70 patients, after a mean time of 87 days. Multiple Cox's proportional hazard analysis showed the location of distal biliary stent was the only independent factor of biliary stent patency ($P = 0.028$; odds ratio, 3.771; 95% CI, 1.157–12.283). Median biliary stent patency rate was significantly longer in patients who had the distal end of the biliary stent beyond the distal end of the duodenal stent (mean, 358 days; 95% CI, 56–660 days), rather than had the distal end of biliary stent within duodenal stent (mean, 135 days; 95% CI, 95–175 days). **Conclusion:** Percutaneous insertion of the biliary metallic stent appeared to be technically feasible, safe, and effective method for the treatment of patients with malignant duodenobiliary obstruction. Moreover, the location of the distal end of the biliary stent beyond the distal end of the duodenal stent would be more effective in these patients.

P301

Mechanical Thrombectomy by Direct Aspiration First-Pass Technique in Ischemic Stroke: Initial Experience

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Objectives: To study the therapeutic effectiveness of direct aspiration first-pass technique (ADAPT) in patients with large-vessel occlusion. **Methods:** From September 2017 to September 2019, a total of 25 patients presenting with large-vessel occlusion of anterior and posterior circulation underwent mechanical thrombectomy. In all the patients, we attempted clot aspiration with ADAPT. Ten patients also received intravenous tissue-type plasminogen activator. Every patient was initially evaluated with noncontrast computed tomography (CT) or magnetic resonance imaging (MRI) along with CT/MR angiography. If the patient presented beyond 6 h