

from 8% to 12% where better results are noted in the two patients with two sessions embolization. **Conclusion:** Bariatric gastric embolization gives better results with embolization of both left gastric and right gastroepiploic arteries and better in two separate sessions without adding any significant morbidity.

OC301

Short-Term Outcome of Prostate Artery Embolization for Begin Prostatic Hyperplasia at Prince Sultan Military Medical City, Riyadh

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Background: Prostatic artery embolization (PAE) is emerging minimally invasive treatment for begin prostatic hyperplasia (BPH). Till now, it carries some cons and some pros as the variable options of BPH management. We report our short-term outcome for this procedure. **Methods:** From our early experience in applying PAE as one of the treatment options for BPH in selected cases started from October 2015 to October 2017. We review the patient presentation, preoperative prostate size, symptoms score, uroflow finding, patient welling, and patient comorbidities. Patients included in the study after full explanation of all BPH management options. We recommend it to the patients with multiple comorbidities and have a high anesthetic risk. Then, we showed the follow-up excluding missed follow-up patients and analysis of these results. **Results:** We had 17 patients with a mean age of 74.6 years. Patients with multiple comorbidities found in 15 of them and ten patients have high anesthetic risks (American Society of Anesthesiologists score 3). Five patients requested this management for fertility issue and worried about the retrograde ejaculation. All patients have smooth postoperative without significant complications. During follow-up, one patient developed a prostatic abscess managed by transurethral drainage. Another two patients developed retention post embolization and trial catheter removal failed. One patient was managed by transurethral resection of the prostate and found to have large median lobe. The other one still on an indwelling catheter. Two patients need remobilization for regaining symptoms. Twelve (70.5%) patients have shown improvement in the International Prostatic Symptom Score by 5–10 points and decreased the prostate size by 10–47 g on follow-up ultrasound. The average flow rate increased to a range 9–14 ml/s. **Conclusion:** Prostatic artery embolization is safe and effective for selected cases and need to be tailored to the patient condition. Long-term follow up is recommended.

OC302

Single-Center Experience in Targeted Prostate Biopsy Using Multiparametric Magnetic Resonance Imaging-Transrectal Ultrasound Elastic Fusion Technique

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Background: Targeted prostate biopsy is challenging because no single currently established imaging modality is both accurate for prostate cancer diagnosis and cost-effective for real-time procedure guidance. A system that fuses real-time transrectal ultrasound (US) images with previously acquired magnetic resonance imaging (MRI) images for prostate biopsy guidance is presented here. Multiparametric MRI-transrectal US (mpMRI-TRUS) fusion targeted biopsy of the prostate gland, a relatively newly performed technique, has shown the potential to gradually replace random TR US-guided prostate biopsy. Targeting suspicious lesions described on MRI has resulted in an increased detection of clinically significant cancer, decreased detection of low-risk cancer, and potential improvement in patient outcome. **Methods:** A total of 34 patients underwent mp-MRI; 25 performed at our center and 9 at other centers. Of all the 34 patients, 19 patients were classified by mp-MRI as having Prostate Imaging Reporting and Data System (PIRADS) 4/5, 10 patients as PIRADS 3, and 5 patients as PIRADS 2. All these patients underwent targeted and nontargeted registered mpMRI-TRUS elastic fusion biopsy between the end of January and December 2017. All patients had negative recent urine culture and underwent bowel preparation and received antibiotic coverage. Anticoagulation and antiplatelet therapy, when applicable, were withheld prior to biopsy. Elastic image fusion and organ-based tracking technique were used. It enabled freehand, three-dimensional TR biopsy mapping and accurate tracking of the prostate, compensating for patient- and probe-induced mobility. **Results:** Sixteen patients had positive biopsies for prostate cancer; positive results of targeted biopsies were found in 14 patients having PIRADS 4/5 (14 out of 19). Of these patients, three also had positive specimens from nontargeted areas; positive results were found in two patients in nontargeted areas. One of these was classified as PIRADS 4 and the other as PIRADS 3. These results show that 79% of patients classified by mp-MRI as PIRADS 4/5 and 10% of patients classified as PIRADS 3 had positive biopsies for prostate cancer. No reported complications, uncontrolled bleeding, or sepsis were noted in all biopsied patients. **Conclusion:** MpmMRI-TRUS fusion biopsy is a safe and accurate method for targeted biopsy of prostate lesions. Despite the modest number of patients, our preliminary results are comparable to the published international numbers, showing a good correlation between the mp-MRI PIRADS classification and the pathological results of mpMRI-TRUS fusion biopsies.

OC303

Radial Access Oncological Intervention: A Single-Center Experience

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Background: Intra-arterial therapy is the foundation of interventional oncology encompassing a number of procedures including tumor embolization, liver-directed therapies (transarterial chemoembolization [TACE], selective internal radiotherapy [SIRT], and bland liver embolization), and oncological complication such as tumor hemorrhage. Traditional femoral access vascular intervention has been the foundation of these procedures; however, femoral punctures can result in a number of complications which limit patient mobility postprocedure. Radial access vascular intervention improves mobility postprocedure and reduces hospital stay. In addition, in the case of pelvic

embolization, targets increase success rates and access to targets. We described our experience of radial access interventional oncology. **Methods:** We have performed over twenty cases of radial access vascular oncological procedures including Y90 treatment, bland liver embolization, TACE, drug-eluting bead (DEB)-TACE, and pelvic tumor embolization. **Results:** We have had no acute complications at the site of puncture or peripheral limb ischemia. We have had two procedure failures due to inability to cannulate the coeliac axis. However, in both of these cases, a second attempt via femoral approach was performed which also failed. One patient experienced radial artery spasm which we relived with local glyceryl trinitrate infiltration and intravenous sedation administration. **Conclusion:** Radial access vascular intervention is an innovative method of delivering intra-arterial therapy. In the oncology setting, it allows improved patient turnaround and reduced hospital stay. Successful hemostasis is also improved due to the relatively peripheral location of the target vessel and adjacent bone to allow adequate compression. We have experienced no significant complications and reduction in hospital stay. In addition, there has been excellent patient feedback focusing on the improved patient mobility postprocedure.

OC304

Combined Transarterial Chemoembolization and Percutaneous Ablation: A Single-Center Experience

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Background: Hepatocellular carcinoma (HCC) is a significant health concern in the Middle-East countries. Various management options are implemented to increase the survival rate in liver cancer patients with variable success rates. In this study, we aimed to evaluate the impact of combined transarterial chemoembolization (TACE) and percutaneous thermal ablation with either radiofrequency ablation (RFA) or microwave ablation (MWA) on the survival rate of patients with 2–5 cm HCC managed at King Faisal Specialist Hospital and Research Center, Jeddah, Saudi Arabia. **Methods:** We retrospectively evaluated 17 patients; 12 males (70%) and five females (30%), with a median age of 74 years. Ten patients (59%) had Child–Pugh A score, while seven (31%) had Child–Pugh B score. The HCC sizes ranged from 2 to 5 cm on the widest dimension. Six lesions (35%) were treated with lipiodol-TACE and 11 lesions (65%) were managed with drug-eluting bead-TACE. RFA was used in ablating 13 lesions (76%) and four lesions (24%) were treated with MWA. We followed those patients by computed tomography/magnetic resonance imaging for local recurrence in 3, 6, 12, and 24 months. The survival rate was assessed in 6, 12, and 24 months. **Results:** After successful combined TACE and imaging-guided percutaneous ablation, no recurrence was noted over 3 and 6 months. However, the recurrence rate was 28% and 50% at 12 and 24 months, respectively. Hundred percent survival rate was accomplished in 6 and 12 months, while we achieved 86% in 24 months, which is similar to a large-scale meta-analysis. However, seven patients have been lost during follow-up. **Conclusion:** A meta-analysis

of combined TACE and percutaneous ablation demonstrates the superiority of this method for decreasing local recurrence and increasing survival rate in patients with HCC measuring 3–5 cm. Our experience supports the recommendations of using combined embolic and ablative therapy in this group of patients.

OC305

Correlation between 30-Day Mortality and Albumin-Bilirubin and Platelet-Albumin-Bilirubin Score Grades Following Transarterial Embolization for Ruptured Hepatocellular Carcinoma: A Retrospective Single-Center Study

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Background: Although uncommon, hepatocellular carcinoma (HCC) presenting as acute rupture has a mortality rate reported to be high as 25%–75%. Management strategies include conservative treatment, surgical resection, as well as transarterial embolization (TAE). TAE can be an effective option to achieve hemodynamic stability in the acute phase though the overall 30-day mortality remains high. The recently developed Albumin-Bilirubin (ALBI) and Platelet-Albumin-Bilirubin (PALBI) grades have been shown to be accurate indicators of hepatic reserve in HCC patients. The purpose of our retrospective study was to assess the technical success and 30-day mortality of bland TAE for ruptured HCC. We also sought to correlate ALBI and PALBI grades with 30-day mortality rate. **Methods:** Data from electronic medical records and Radiology reporting system for all TAE procedures for patients diagnosed with ruptured HCC between 2012 and 2017 were retrospectively reviewed. We analyzed demographics, medical history, laboratory findings, and corresponding ALBI and PALBI grades, imaging findings, technical details, and clinical outcome. **Results:** A total of 24 TAE procedures were performed on 22 patients (16 males and 6 females) presenting with ruptured HCC between 2012 and 2017. Mean age at first presentation was 69.4 years (range: 24–103 years). Majority of the cases presented with abdominal pain and/or distention ($n = 22$) and were diagnosed on computed tomography ($n = 21$). Seven patients had solitary lesion, whereas 15 patients had either two ($n = 2$) or more ($n = 13$) lesions. Of the 22 patients, 20 patients had liver cirrhosis and 15 patients were known to have a diagnosis of HCC prior to rupture. The mean ruptured lesion size was 8.9 cm (range: 2.6–22 cm). Baseline ALBI grade at presentation was 2 ($n = 10$) and 3 ($n = 13$), while PALBI grade was calculated at 1 ($n = 22$) and 2 ($n = 1$). Gelfoam was the embolic agent in 12 (50%) and polyvinyl alcohol in 10 (42%) cases. Active contrast extravasation was noted in only 6 (25%) TAE procedures. All cases were technically successful (defined as satisfactory occlusion of artery feeding the ruptured tumor). Clinical success (defined as stabilization of hemoglobin levels 48 h post-TAE without need for re-intervention) was achieved in all but two interventions (one patient died within 48 h postintervention and another required a repeat embolization on the next day). 30-day mortality rate (27%) was calculated for 22 interventions (one patient lost to follow-up after being discharged on day 6). There was no correlation between 30-day mortality and ALBI grade ($P = 0.8$), PALBI grade ($P = 1$), and largest ruptured lesion diameter ($P = 0.7$). **Conclusion:** Despite