Article published online: 2021-05-11

technically successful TAE for ruptured HCC, there is a high 30-day mortality. There was no correlation between 30-day mortality and ALBI and PALBI grades in our study.

OC306

Hematoma or Contrast Extravasation Posthepatic Tumor Ablation: Does It Require Intervention?

Almamoon I. Justaniah, Quang Nguyen[1], Ammar Sarwar[1], Muneeb Ahmed

King Abdullah Medical City, Makkah, Saudi Arabia, [1]Beth Israel Deaconess Medical Center, Boston, US.
E-mail: dr_justaniah@yahoo.com

Background: This study aimed to determine the incidence and management of clinically significant bleeding after radiofrequency ablation (RFA) of hepatic tumors and to evaluate the need for angiographic intervention in patients with active contrast extravasation on immediate postablation imaging. **Methods:** In this Institutional Review Board-approved, Health Insurance Portability and Accountability Act-compliant study, computed tomography (CT) and clinical data were retrospectively reviewed of consecutive patients (March 2006–September 2014) who underwent percutaneous image-guided ablation of hepatic tumors. Patients were evaluated for the need of care escalation and angiographic intervention for ablation-related bleeding within 30 days of the procedure. **Results:** A total of 339 patients (422 tumors) treated with percutaneous ablation were included. One hundred and nineteen patients required hospitalization following ablation with 74 (62.1%) and 10 (8.4%) patients having a perihepatic hematoma and active contrast extravasation/bleeding, respectively, on postablation imaging. Nine out of 119 patients (7.6%) required escalation of care to an Intensive Care Unit (ICU). The average hospital stay of patients with a perihepatic hematoma, bleeding, or lack of thereof on immediate postablation imaging was 2.5, 1.6, and 2 days, respectively (P = 0.47 and 0.28). Furthermore, 6/339 patients (1.7%) required angiography due to clinically significant bleeding with 1/339 (0.3%) death postprocedure (from progressive hypotension requiring ICU admission, angiographic intervention, and subsequent emergent laparotomy on postprocedure day 1 for delayed hemorrhage and disseminated intravascular coagulation). In comparison with a lack of hematoma, the presence of a perihepatic hematoma or active contrast extravasation on immediate postablation imaging did not increase the need for angiographic intervention for bleeding compared to patients without perihepatic hematoma on immediate imaging (P = 0.14 and 0.13, respectively). **Conclusion:** Perihepatic hematoma and/or active contrast extravasation seen on immediate contrast-enhanced CT after hepatic tumor ablation does not necessitate escalation of care, increased hospital stay, or angiographic intervention and can be managed conservatively. Specifically, postablation contrast extravasation does not equate to unstable bleeding and need for immediate angiography.

OC307

Combined Treatment, Transarterial Embolization, and Microwave Ablation in Patients with Hepatocellular Carcinoma

Mohamed Zaitoun

Zagazig University Hospitals, Zagazig, Egypt.
E-mail: zaitoun82@gmail.com

Background: This study aimed to compare the feasibility and benefit of combined therapy (transarterial embolization [TACE] + microwave ablation [MWA]) versus TACE or MWA alone in the treatment of hepatocellular carcinoma (HCC) >3 and <5 cm. **Methods:** During 3 years, 150 consecutive patients with HCC >3 and <5 cm were divided into three groups: Group 1: fifty HCC patients who underwent TACE, Group 2: fifty HCC patients who underwent MWA, and Group 3: fifty HCC patients who received combined therapy with TACE followed by MWA after 1 month. The mean age was 57 years, 94 (62.7%) patients were males. Follow-up with triphasic computed tomography (CT) was performed after 1 month and then every 3 months for 1 year. **Results:** After 1 month, complete response was detected in 27 cases (54%) in Group 1, 22 cases (44%) in Group 2, and 50 cases (100%) in Group 3; partial response in 8 cases (16%) in Group 1 and 5 cases (10%) in Group 2; and progressive disease in 15 cases (30%) in Group 1 and 23 cases (46%) in Group 2. Recurrence rate after 1 year was 38 cases (72%) in Group 1, 40 cases (80%) in Group 2, and 9 cases (18%) in Group 3. Disease-free survival rate at 12 months was 12 cases (24%) in Group 1, 10 cases (20%) in Group 2, and 41 cases (82%) in Group 3. **Conclusion:** Combined therapy (TACE + MWA) in HCC >3 cm and <5 cm is better than TACE or MWA alone concerning the recurrence rate and disease-free survival rate.

OC308

The Impact of Implementation of Electronic Medical Record on the Practice

Khalid Othman, Omar Bashir, Mohammed Arabi

National Guard Health Affairs, Riyadh, Saudi Arabia.
E-mail: othmankh@ngha.med.sa

Background: The use of information technology (IT) had measurable impact on many aspects of the practice of medicine and radiology. The introduction of electronic medical records (EMRs) has improved work efficiency by standardization of data collection and protocols, reducing the chances for medical errors, and facilitated long-term data maintenance. Implementation of EMR in interventional radiology represents a unique challenge, where both clinical and radiology information has to be integrated. **Methods:** This poster discusses the impact of introducing a new EMR system on workflow in vascular interventional radiology (VIR) and briefly discusses the preparation for launching EMR system, obstacles, advantages, and disadvantages based on an electronic survey of employees in the VIR unit at King Abdulaziz Medical City and King Abdullah Specialized Children Hospital. **Results:** Launching the EMR system was preceded by 6-month period of a hospital-wide training, introducing the new EMR system to all health-care providers and associates. During this period, all hospital units were equipped with new computers, IPads, and special printers compatible with the new system. Integration of the Radiology Information System and new EMR was carefully conducted and monitored by the radiology IT team and new pre- and post-procedure order sets for every VIR procedure were uploaded to the system. Intensive training of staff and “super users” was done in preparation for the actual launch of the system. On-call clinical and IT teams along with hotlines were available on the day of “Go Live” for troubleshooting. The electronic survey of the VIR team on the use of EMR had a 66%

response rate. Nearly 75.6% of the surveyed staff felt that the EMR system met their needs. Almost 69.7% considered EMR system as an easy-to-use system, with 84.8% preferring EMR to the use of paper record. About 63.3% of the surveyed staff agreed that the EMR system reduces the preprocedural preparation time. Nearly 51.7% of the responders did not think that the EMR system reduces the duration of patient stay in holding area after the procedure. Majority of the responders (62%) considered that the EMR system reduces the risk of medical errors when compared with paper records. **Conclusion:** The EMR system has the capability of significantly changing the workflow in VIR department. Our survey results indicate that the majority of users felt that the EMR system is easy to use and it met their needs.

OC309

Comparative Effectiveness of Percutaneous Ethanol Injection Therapy and Parathyroidectomy in the Treatment of Secondary and Tertiary Hyperparathyroidism

Nakarin Inmutto, Tanop Srisuwan, Thanate Kattipatanapong, Prach Pochan

Chiang Mai University, Chiang Mai, Thailand.
E-mail: ninmuttomd@gmail.com

Background: Secondary and tertiary hyperparathyroidism is a common complication of chronic renal failure. Percutaneous ethanol injection therapy (PEIT) appears to be able to control appropriate parathyroid function alternatively to surgery. **Methods:** The records of 91 patients with chronic renal failure with secondary or tertiary hyperparathyroidism between January 2006 and July 2015 were reviewed retrospectively. Fifty-five patients underwent PEIT, while 36 patients underwent parathyroidectomy. Effectiveness and complication were compared between the two groups. **Results:** Parathyroid hormone level (PTH) after treatment <160 pg/mL was used to indicate successfulness of the treatment. The PEIT group showed lesser effectiveness than surgery group; 1.8% versus 61.1%, P = 0.000, odds ratio (OR) = 0.012 and 95% confidence interval (CI) = 0.001–0.970. There was no complication in the PEIT group. Symptomatic hypocalcemia was found to be 11.1% in the surgery group; P = 0.011, OR = 0.889, and 95% CI = 0.792–0.998. **Conclusion:** The efficacy of PEIT in the treatment of secondary and tertiary hyperparathyroidism was much lower than that of parathyroidectomy.

OC310

Percutaneous Image-Guided Peritoneal Dialysis Catheter Insertion: Retrospective Review of 58 Patients

Mohammad Arabi, Sultan Alammari, Shahbaz Qazi, Omar Bashir, Refaat Salman, Yousof Alzahrani

King Abdulaziz Medical City, Riyadh, Saudi Arabia.
E-mail: marabi2004@hotmail.com

Background: This study aimed to retrospectively evaluate the short-term outcomes of image-guided percutaneous peritoneal dialysis (PD) catheter insertion. **Methods:** From August 2015 to October 2017, a total of 58 consecutive patients (29 males), with a mean age of 47.7 years (15–96 years), underwent percutaneous PD catheter insertion. Peritoneal catheter was the initial method of dialysis in 48 patients (83%), while 9 (17%) patients were on regular hemodialysis and 1 patient had a history of PD through a surgically placed catheter. Dwelling time was defined as the time from insertion to the last clinical follow-up or catheter removal. Procedure- and catheter-related complications were recorded. **Results:** Catheter insertion was successful in 57 patients (98%). One procedure was initially aborted after inferior epigastric artery injury that resulted in pseudoaneurysm requiring thrombin injection. This patient underwent uneventful catheter insertion on the other side few days later, rendering the overall technical success of 100%. Another patient had procedure-related peritonitis 48 h following the initial insertion and was treated by antibiotics and catheter exchange. Dialysis was successfully initiated in 55 patients (94%) and failed in the remaining 3 patients due to persistent blockage from previous PD-related adhesions (n = 1), large seminal vesicle cysts occupying the pelvis (Zinner syndrome) (n = 1), and one patient remained on hemodialysis. During a mean dwelling time of 299 days (21–819 days), dialysis remains ongoing in 32 patients (55%). A total of 23 catheters were removed during the mean time of 170 days (12–699 days) as follows: postrenal transplant (n = 9), patient's preference for hemodialysis (n = 4), peritonitis (n = 5), need for high-rate hemodialysis (n = 1), pleuroperitoneal connection (n = 1), leak (n = 1), wound infection (n = 1), and persistent blockage (n = 1). Catheter dysfunction due to blockage or tip migration occurred in 13% (8/58), with subsequent relapsing peritonitis necessitating catheter removal in five patients despite repeated manipulation and exchange. Two patients (2/8) had successful manipulation using a stiff wire with ongoing dialysis and one patient died from other comorbidities. Catheter-related peritonitis occurred in 26% (15/58) of patients, which was managed by antibiotics in 9 cases with ongoing dialysis at last follow-up and catheter removal in 5 patients. One catheter was complicated by the overlying skin necrosis due to excessive weight loss after insertion, which was managed by skin closure with sutures. One patient had tiny small bowel perforation during wire manipulation of malpositioned catheter, which was treated with antibiotics with no consequences. Two patients died during the follow-up time due to worsening comorbidities. **Conclusion:** Percutaneous image-guided placement of PD catheter is an effective minimally invasive technique. Proper catheter maintenance is essential to prevent catheter dysfunction and peritonitis, which represent the most frequent complications.

OC311

Difficulties and Challenging Cases in Radiological Intervention Management of Postcholecystectomy Biliary Injury and Posthepaticojejunostomy Complications: More Than 20 Years' Experience from Tertiary Care Centers

Abd El-Salam Abd El-Aziz Abd El-Aziz, Iyad M. Subei[1], Hany Mohamed Abdel-Hakim Saif

Faculty of Medicine, Assiut University, Assiut, Egypt, [1]Dr. Erfan and Bagedo General Hospital, Jeddah, Saudi Arabia.
E-mail: abdelsalam1st@gmail.com