including 3 DO programs (6%). Weekly webinars averaged 30 attendants (range 10-56), with an average of 17 male (65%) and 20 female (35%) students. Of the total attendant institutions, 46% did not have their own IRIG interest group, 64% did not have faculty listed in the SIR directory, and 74% did not have an integrated IR residency. **Conclusion:** A webinar-based elective may serve as an effective method for increasing exposure to IR, especially for medical students at institutions and in regions without robust IR exposure.

OC411

***In situ* Arterialization of the Posterior Tibial Vein for Management of Critical Limb Ischemia Using Outback Re-Entry Catheter-Technical Report**

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Background: Critical limb ischemia (CLI) is considered a serious public health burden in the Gulf region especially with the high incidence of diabetes mellitus in this region. Several endovascular and open surgical methods are used to preclude amputations or mitigate the morbid consequences. Endovascular arterialization of the deep veins for improving the distal blood flow to the lower limb has recently been used in CLI patients. In this paper, we describe a new endovascular technique for *in situ* arterializations of the posterior tibial vein using Outback (Cordis) re-entry device. We discuss the patient selection criteria for arterialization of leg veins and discuss the outcome. **Methods:** We reviewed the demographic information, peripheral arterial disease risk factors, clinical history, treatment history, and images of the patient referred for consideration of arterialization of the leg veins. Images from PACS are used to describe the novel technique of lower limb venous arterialization. **Results:** A 52-year-old male patient, diabetic and heavy smoker, presented with a non-healing ulcer and rest pain in the right foot. He had a surgically amputated big toe. Imaging showed below knee occluded arteries with a patent dorsalis pedis and foot arteries. He was managed several times by endovascular methods with recanalization of the anterior tibial artery (AT). The AT was treated with a standard balloon, drug-coated balloons, short focal stent to maintain patency over 2 years. The patient presented with recurrent symptoms of CLI and occluded AT after almost every 3 months of intervention. A surgical femoral distal bypass was also done which occluded. The latest endovascular intervention was 5 months back with quick recurrence. His case was discussed in the multidisciplinary vascular meeting, and he was offered either surgical amputation or a trial of endovascular arterialization of the leg veins. The patient decided to go with the latter. The right common femoral artery was accessed in an antegrade fashion, and a 7-French sheath was inserted. First, the re-occluded AT artery was recanalized and treated with 3 mm standard balloon. The posterior tibial vein (PTV) was accessed under ultrasound guidance, and a simultaneous arteriogram and venogram were done for localization. From

the femoral access, an Outback Re-Entry Catheter (Cordis) was inserted to the level of the Tibio-Peroneal trunk, and a needle was advanced successfully into the PTV to create an arteriovenous fistula. Angioplasty for the track was done followed by covering it with a stent graft. Balloon Valvotomy was done up to the hind foot. The final angiogram showed a fast flow of contrast to the foot. The patient was discharged with improved clinical symptoms. The patient was reviewed in 3 months with a healed ulcer, no rest pain and a clinically patent arterialized PTV. **Conclusion:** *In situ* arterialization of the deep veins using Outback Re-Entry Catheter (Cordis) is a new modified technique for endovascular management of end-stage CLI. It is technically feasible with good early clinical outcome in our patient.

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Hepatocellular Carcinoma Post-Transarterial Chemoembolization and Diffusion-Weighted Imaging: Therapy Outcome Prediction and Tumor Response Assessment

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Background: The current established therapeutic response criteria for hepatocellular carcinoma (HCC) postconventional transarterial chemoembolization (cTACE) is based on tumor enhancement. This can be difficult to quantify in some cases presented by benign conditions of enhancement and in tumor areas show heterogeneous pattern of enhancement. Furthermore, reliable response prediction before cTACE can help to identify patients with potential treatment benefit. Diffusion-weighted imaging (DWI) was investigated as an aiding tool for response assessment and outcome prediction. **Methods:** From February 2015 to February 2017, 60 patients/70 lesions with average lesions size 4.14 cm (range: 1.0–10 cm) diagnosed as HCC had performed DWI 2 weeks before and 3 weeks after cTACE. The *b* values used in the diffusion sequence were 50, 200, and 800 s/mm². The corresponding apparent diffusion coefficient (ADC) maps were generated. The results were correlated with 3 months modified response evaluation criteria in solid tumors (mRECIST) objective response. **Results:** There was an absolute increase in ADC values in responding lesions compared to nonresponding lesions by mRECIST criteria (35.4% vs. 5.2%; *P* < 0.001). The increase in volumetric ADC values posttrans-arterial chemoembolization (TACE) to 1.65×10^3 mm²/s in at least >42% of the tumor volume correlates with objective response by mRECIST with a sensitivity of 90.4% and specificity of 80.1% (*P* = 0.001). The pretreatment ADC value above the threshold 1.31×10^3 mm²/s predicts tumor response by mRECIST with a sensitivity of 81% and specificity of 60%. **Conclusion:** ADC value differences before and after TACE may provide valuable information for lesions response post-TACE and may play a role in predicting the HCC response.