

Conclusions: Significant improvement in physical and mental health related quality of life was observed in patients suffering from hepatocellular carcinoma undergoing TACE.

OC 2.4

Five-year Experience of Percutaneous Cryoablation of Symptomatic Venous Vascular Malformations as Second-Line Therapeutic Option

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Background: To report the mid-term outcomes of percutaneous cryoablation (PCA) performed as second-line therapeutic option of venous vascular malformations (VVM). **Methods:** From 2011 to 2015, PCA was offered in 24 patients (mean age: 31 years, range: 12-64) as second-line treatment for recurrences of symptoms after sclerotherapy and when resection was not possible (due to lesion location or previous failure) or refused by the patient. Adverse effects were recorded, disease-free survival (DFS) and local tissue control (LTC) rates were calculated based on symptoms and volume evolution. **Results:** Mean follow-up was 18.7 months (6-48). Nine (37.5%, 9/24) adverse effects occurred but only three (12.5%, 3/24) were severe. Mean pain assessed by visual analogic scale (VAS) was 41.7 mm (0-80) before treatment and 20.3 mm (0-80) ($P = 0.01$) after. Mean volume decreased significantly after treatment from 22.4 cm³ (0.9-146) to 8.35 cm³ (0-81.3) ($P < 0.001$). Pain recurred in nine patients and size of one lesion increased. The DFS and LTC rates were 54% [95% CI: 22.94-77.27] and 93.33% [61.26-99.03] at 24 months, respectively. Only VVM volume >10 cm³ was associated with a higher risk of local recurrence ($P = 0.05$). **Conclusions:** PCA as second-line treatment appears to be safe and effective for local control of VVM according to mid-term results.

OC 2.5

Bedside Intravascular Ultrasound-guided Inferior Vena Cava Filter Placement in Critically-Ill Patients

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Background: Pulmonary Embolism (PE) is a potentially life-threatening complication of critical illness. Prophylactic inferior vena cava filter (IVC) placement offers a protection rate of 99% against fatal PE. **Methods:** Bedside IVC filter insertion guided by IVUS in 37 consecutive critically-ill patients. All patients had clinical indications for IVC interruption; including prophylaxis in high risk patient in the absence of DVT or PE ($n = 27$). The other indication was that patients were suffering from PE and/or DVT with a contraindication to anticoagulation, or ineffective anticoagulation. Transportation to angio- suite was risky or not feasible. **Results:** 37 patients, 13 patients were female and 24 were male with age ranged from 18 to 80 years with an

average age of 44 years old. The filters were placed correctly in 35 of 37 patients (95%). filter was inserted at iliac vein in 2 patients that were retrieved and IVC filter was inserted guided by Fluoroscopy via transjugular approach. Placement timing was 5 days at average for surgical ICU patient compared to 17 days for medical ICU patients. infrarenal IVC diameter was 21.8 mm. There were no filter-related complications such as migration penetration or Filter-related thrombosis. There was no recorded incident of PE after IVC filter deployment. Only one filter was retrieved 20 days after placement. **Conclusions:** Bedside IVUS guided IVC filter placement for critically ill patient in the intensive care unit is a radiation free, contrast free and it is not limited by patient's obesity or recent abdominal surgeries or orthopedic hardware which could be limiting factor for trans abdominal duplex Doppler guided technique.

OC 2.6 (First place oral presentation prize winner)

Day Case Endovascular Aneurysm Repair – Our Experience after 250 Patients

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Background: With more than 1000 EVAR patients experience in our centre, the advancement of ultra-low profile EVAR devices and percutaneous access, discharging uncomplicated EVARs in less than 24 hours is becoming more common. **Methods:** Single centre retrospective analysis of prospectively gathered data on 250 consecutive elective day-case EVAR cases (dEVAR). Patients for dEVAR are selected following joint radiology, surgical and anaesthetic team meeting using UK day-case surgery and locally agreed guidance. Patients deemed suitable are put on a special dEVAR pathway to be admitted on day of surgery and discharged in less than 24 hours. **Results:** 220 patients were followed-up after dEVAR. 98% were successfully discharged in less than 24 hrs post-operatively. One patient (0.45%) with access vessel complications required additional procedures and had to be hospitalised for two days. One patients (0.45%) with non-cardiac chest pain was hospitalised for two days. Two patients (1%) failed to be discharged within 24 hours but no clear cause documented in the notes. None of the dEVAR patients had a re-admission to hospital within 30 days with no 30-day mortality. Cost comparison showed dEVAR led to reduced overall average cost when compared to standard EVAR from $\leq 13,705$ ($CI = \pm 685$) to $\leq 9,330$ ($CI = \pm 735$). **Conclusions:** dEVAR is not for every patient but can be performed safely under appropriate criteria. In this series morbidity was minimal with significant cost saving.

P101

Interventional Radiology: Giving Cosmetic Medicine a Makeover

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Background: The global cosmetic market has been on the rise with a recent surge in minimally invasive procedures. Cosmetic

interventional radiology (IR) offers less risk, pain and recovery time. This translates into better care at lower cost when compared to traditional surgery. Medical care is evolving into a minimally invasive specialty which provides interventional radiologists the unique opportunity to take part in the rapidly growing cosmetic medicine marketplace. **Methods:** Comprehensive literature review was performed to identify the scope of IR within cosmetic medicine. Common cosmetic procedures performed by IR, techniques used and their effectiveness are investigated. **Results:** Varicose vein treatment, laser lipolysis and liposuction are frequently performed. Additional procedures such as botulinum toxin (Botox) injections, collagen fillers, arterio-venous malformation (AVM) sclerotherapy, laser skin resurfacing and hyperhidrosis treatment are also gaining popularity. Recent advances in endovenous techniques including endovenous laser therapy (EVLT), radiofrequency ablation and sclerotherapy have been revolutionary. EVLT has a 98% success rate and a long-term recurrence rate <7%, surpassing the results produced by traditional vein stripping. Laser lipolysis and liposuction are alternatives to invasive weight loss procedures. Lipolysis has gained popularity due to a study conducted by DiBernardo *et al.* (2009) where lipolysis was found to have significantly higher mean size shrinkage and skin tightening when compared to traditional liposuction. **Conclusions:** As radiology's most innovative branch, IR has a broad landscape; thus, it is at an advantageous position to expand into the emerging field of cosmetic medicine. Cosmetic IR offers equal value with no surgical scar, shorter recovery and lower morbidity when compared to open surgery. Advances developed by IR has dramatically changed medicine. In the near future, it will do the same for cosmetic medicine by creating both new and enhancing existing techniques through image guided approach in order to deliver optimal patient care.

P102

Special Phantom for Ultrasound Interventional Training Construction, Advantages and Application

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Background: Training on patients causes more pain, complication, cost and time with possible technical problem e.g. non-targeted organ biopsy. Alternatives. Simulation provide safe training more adherent to ethical issues. This poster show a simple low cost gelatin phantom for training with easy construction and many advantages. **Methods:** Using gelatine with special formula adjusted to obtain echogenicity similar to human tissue with minimized needle pass artifact. New technique for biopsy phantom is demonstrated with many advantages in controlling target echogenicity and posterior shadow to simulate any suggested target. **Results:** The produced phantom is extremely helpful to the IR trainers who need to avoid patient harm and increase skills of puncture and targeting for biopsy. It also have the advantages of low cost and available ingredients with construction step by step demonstration. **Conclusions:** Safe low cost IR training is feasible by this special formula simulating human echogenicity with reduced needle pass artifact.

P103

Evaluation of the Causes of Erectile Dysfunction in Patients Undergoing Invasive Penile Doppler Sonography: A Study of Adult Pakistani Population

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Background: In patients with erectile dysfunction it is important to differentiate psychogenic from organic causes. Color Doppler sonography of penis is a relatively inexpensive and partially invasive tool for this purpose. This study was conducted to evaluate the causes of erectile dysfunction in the adult population of Pakistan, who underwent penile doppler sonography. **Methods:** This retrospective cross sectional study was conducted at the Dow Institute of Radiology, Dow University of Health Sciences, Karachi, Pakistan. All consecutive patients presenting with the complaints of erectile dysfunction and undergoing penile doppler sonography from July, 2014 till June, 2016 were included in this study (n = 97). The examination was performed by a radiologist with more than five years experience in small parts ultrasonography. All examinations were performed on GE Voluson S6 and GE Logiq P5 with a high frequency probe. Following baseline scans, intracavernosal injection of 20 µg of prostaglandin E1 was given close to the base of penis. Peak systolic velocity and end diastolic velocity were measured in each cavernosal artery at the interval of 5 minutes. Patients with a peak systolic velocity of less than 25 cm/sec were considered to have arterial insufficiency. A greater than 5 cm/sec end diastolic velocity was used to describe venous incompetence. Erection grading of penis at the interval of ten minutes was done by erection hardness grading score. **Results:** Out of 97 patients (mean age 37.09 ± 11.59 years; range 19-69); 50 (51.5%) patients had normal penile Doppler sonographic findings, 24 (24.7%) had arterial insufficiency, 15 (15.5%) had venous leak, while 8 (8.2%) patients had arterial insufficiency with venous leak. **Conclusions:** Penile doppler sonography is a useful tool for evaluation of causes of erectile dysfunction. The majority of studied Pakistani individuals demonstrated no organic cause, thus conforming to the high prevalence of psychogenic etiology.

P104

Awareness Regarding Radiation Protection Among Residents and Technologist Working in Vascular Interventional Radiology Department: A Multicenter Study from Pakistan

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Background: To determine the level of knowledge regarding radiation protection among residents and technologist working in vascular interventional radiology department. **Methods:** A survey was conducted regarding radiation protection from March 2016