

the procedure and on 6 weeks follow up CT scan. There were two minor complications (n = 2, 13%). **Conclusions:** Fluoroscopy guided percutaneous hydrodissection is a safe and effective technique prior to radiofrequency ablation of hepatic malignancies abutting the liver capsule.

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Tumor Cell Needle Tract Seeding and Intracardiac Migration Following Percutaneous Image Guided Fiducial Seeds Implantation: A Two Rare Complications

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Background: Fiducial markers are useful for stereotactic body radiotherapy for treatment of malignant tumors. Here, we report two cases of rare complications following percutaneous fiducial markers placement. **Methods:** First case, a 51-year-old male with high grade metastatic neuroendocrine tumour of the liver who underwent ultrasound guided placement of four fiducial markers in the right hepatic lobe tumour. Second case, a 41-year-old lady with rectal adenocarcinoma and pulmonary metastasis who underwent CT guidance fiducial markers placement in four metastatic lung lesions. **Results:** First case developed tumor cell seeding along the needle tract of the fiducial marker placement procedure. This was detected on follow up cross sectional imaging. Second case developed intracardiac migration of one of the fiducial markers into the left ventricle during the procedure. The patient continues to be totally asymptomatic on follow up after one and half month after the procedure. The migrated fiducial marker has not changed its location in the left ventricle as well. **Conclusions:** Although rare, tumour cell tract seeding and intracardiac migration following percutaneous fiducial markers placement are potential complications and should be taken in consideration.

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Comparison of Efficacy of Transarterial Chemoembolization and Radiofrequency Ablation For Treating Solitary Hepatocellular Carcinoma in Patients with Hepatitis B or C

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Background: Hepatocellular carcinoma (HCC) is a common cancer and ranks second amongst all causes of cancer deaths world wide. Its incidence is increasing day by day in many countries specially in Pakistan due to high prevalence of hepatitis B and C which is known risk factor for HCC. **Methods:** This is a retrospective study conducted from January 2015 to December 2015, in which total 148 patients were enrolled with mean age of 56.7 years out of which 84 were men and 64 were women. 102 patients were HCV positive and 46 patients were HBV positive. All patients had solitary HCC (<4 cm). Out of 148 patients, 68 underwent RFA (45.9%) and 80 patients underwent TACE (54.1%). The response of treatment was assessed at 6 weeks follow up by

quadriphasic CT scan. Patients were followed up to 2 years for overall survival. **Results:** A total of 148 patients with solitary HCC were enrolled [RFA 68 (45.9%) and TACE 80 (54.1%)]. At 6 weeks of follow-up, complete response was found higher in RFA group patients which was 67.6%, as compared to patients who had TACE which was 45%. Progressive disease and partial response in TACE was 17.5% and 30% respectively (*P* value 0.031) which is higher than RFA. At 1 year follow-up, out of total 148 patients, significantly higher mortality was observed in TACE (17.5%) as compared to RFA (2.9%) (*P* value 0.004). Among these 132 alive patients, follow-up at 2 year showed insignificantly higher mortality in TACE (18.2%) as compared to RFA (9.1%) (*P* value 0.128). **Conclusions:** RFA is considered as first line of treatment for solitary HCC whereas TACE can be taken as alternative treatment when RFA is not possible.

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Complete Ablation Rate of Percutaneous Radiofrequency Ablation of Hepatocellular Carcinoma in Favorable and Unfavorable Locations: Using Real Time Ultrasound Guidance and Expandable Electrode Needle

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Background: To evaluate the success rate of percutaneous radiofrequency ablation (RFA) for hepatocellular carcinoma (HCC) by using real time ultrasound guidance and expandable electrode. **Methods:** A retrospective study reviewed of CT and MRI findings from August 2015 to October 2016 of 91 HCCs. The patient's data, RFA data, location of the HCC, complication after procedure and imaging success rate of complete ablation were analyzed. The size of tumor range 0.5-4.5 cm. We performed RFA by using real time ultrasound guidance and expandable electrode needle (LeVeen, Boston scientific cooperation, USA) with stepwise method and double ablation method to reduce ablation time and more ablative area. The unfavorable locations of tumor (exophytic appearance, near capsule, near gallbladder, near bowel, near vessels) were performed without artificial ascites. **Results:** Complete ablation was obtained in 91.2% (73/91) of all HCCs. The complete ablation rate in favorable location was 100% (12/12), while the complete ablation rate in unfavorable location was 89.9% (71/79). Only one complication was found in 91 sessions of all HCCs. **Conclusions:** Using expandable electrode catheter combined with real time ultrasound guidance help ablates tumor in high risk locations with high success rate, low complication and fast operation time.

P301 (Second place poster presentation prize winner)

Endovascular Armamentarium for the Management of Wide-Neck Intracranial Aneurysms: Rashid Hospital Experience

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Background: Endovascular therapy (EVT) is considered to be the first line treatment for aneurysm however this treatment option has its limitations in cases of wide necked aneurysm (WNA). These include high risk of coil protrusion in the parent vessel and early recanalization in case of bifurcation aneurysms. These limitations prompted the development of more complex endovascular techniques. In the present short review, we give introduction of these techniques and devices and provide case examples performed in Rashid hospital Dubai. **Methods:** Balloon Remodeling: This technique is probably the more frequently used in the treatment of WNBAs. Balloon is temporarily inflated in front of the aneurysm neck followed by coil packing and deflation before permanent coil deployment to evaluate possible migration. In more than 30 cases of ruptured and unruptured WNA's dealt at Rashid hospital, the remodeling technique was shown to be safe and potentially improved anatomical results. Stent Assisted Coiling: A stent can be deployed across the aneurysm neck in the parent vessel and coiling performed with catheter progressed through the stent struts. Y Stenting: When the aneurysm is centered at bifurcation, a Y stenting technique can be used. Although the chances of morbidity are higher in this technique, we did not encounter any complications in our patient series at Rashid Hospital except occasional spasm in parent vessel. Woven Endobridge Device: WEB is an intrasaccular flow disrupter having a braided nitinol mesh. The mesh structure of the WEB provides a stentlike apposition to the aneurysm wall. Flow Diverters: Flow diverters are low-porosity stents designed to reduce hemodynamic exchange between the aneurysm and the parent artery, which promotes thrombosis and neointimal overgrowth over the aneurysm neck. Flow-diverter treatment is associated with high efficacy, but with safety that is inferior to standard coiling. pCONus: The pCONus is a stent-like endovascular implant featuring a distal end that opens like a blossoming flower with its four petals resting on the inside of the aneurysm along the neck. The petals support the deployment of coils inside the aneurysm. Other Devices: Pulse Rider device self expandable implants and Luna device are few other techniques employed in the coiling of wide neck aneurysms. **Results:** Provided in the form of pictures case examples. **Conclusions:** The management of a patient with a wide necked cerebral aneurysm is complex, however the continuous development of new neuro endovascular techniques and materials nowadays offer a significantly wider range of therapeutic possibilities in cases of aneurysms with unfavorable size and configurations which have traditionally been treated surgically.

P302

Endovascular Management of Intracranial Dissecting Aneurysms: Single Center Experience

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Background: Management of intracranial dissecting aneurysms is controversial and technically challenging. The aim of this study is to evaluate the efficacy and safety of different endovascular management strategies. **Methods:** A retrospective analysis of all patients that underwent endovascular treatment of either ruptured or unruptured intracranial dissecting aneurysms, between 2011 and 2016, at a tertiary care center was performed. The technical and clinical results of different techniques were analyzed. **Results:** Among our 24 patients, 14 patients had

ruptured aneurysms and 10 cases had unruptured aneurysms. Parent vessel occlusion was performed in 12 cases, and artery preserving technique was successfully performed in 8 cases. Two cases showed spontaneous thrombosis of their aneurysms before treatment and 2 cases rebled and died before treatment. Among the 8 cases treated by artery preserving technique, 2 cases were treated by coils, 2 cases by stent-assisted coiling, 2 cases by flow diverter stent, 1 case by balloon assisted coiling and 1 case by 2 braided stents. No procedure related complications. Recurrence occurred in 1 case which is not treated yet. **Conclusions:** Endovascular approach offers many effective and safe strategies for the management of the intracranial dissecting aneurysms. The involved artery and the collateral circulation should be taken into consideration during decision making.

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Sub Arachnoid Hemorrhage: Update in Endovascular Treatment of Intracerebral Aneurysms

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Background: Sub arachnoid hemorrhage (SAH) is mostly the result of ruptured aneurysms. There are two types of aneurysms, saccular and fusiform. Coiling is most prevalent endovascular treatment of saccular aneurysms. Challenge comes for wide neck saccular and fusiform aneurysms. Objective is to assess the latest endovascular treatment of wide necked saccular and especially of fusiform aneurysms. **Methods:** 178 patients were coiled between Jan 2015 to Nov 2016 in Department of interventional neuroradiology, Lahore General Hospital, Lahore. Patients were of both genders with age ranging from 22-65 yrs. Among them eight had wide neck or fusiform shape, which are difficult to coil by conventional coiling. **Results:** Out of 178 patients 170 were coiled with conventional coiling. Other eight had either wide neck or are of fusiform in shape. Flow diverters are latest mode of treatment for such aneurysms. Eight flow diverters were deployed five on fusiform and three on wide necked aneurysms. These are nickel cobalt soft stents especially designed for intra cerebral use. Wide necked aneurysms also had partial coiling for further reinforcement. All patients were successfully treated with no complications. **Conclusions:** Endovascular coiling is better option for treatment of both anterior and posterior circulation aneurysms with less morbidity and mortality. Flow diverters have added another option for endovascular treatment of wide necked and fusiform aneurysms.

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Local Experience with a New Retrievable Device for Stroke Thrombectomy in a Tertiary Academic Center

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Background: Intravenous tPA has limitations in treating patients with large vessel occlusion stroke. The use of intra-arterial catheter for mechanical removal of thrombus was approved