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EP13

PREDICTORS AFFECTING ARTERIOVENOUS FISTULA PATENCY AFTER SUCCESSFUL PERCUTANEOUS TRASLUMINAL BALLOON ANGIOPLASTY

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Introduction: This study aims to assess the post-intervention patency and investigate the predictors affecting the arteriovenous fistula (AVF) patency after a successful percutaneous transluminal angioplasty.

Materials and Method: This is single center retrospective study of 88 hemodialysis patients who underwent percutaneous transluminal angioplasty (PTA) due to AVF stenosis. Variables of a clinical, anatomical, and technical factors were subjected to analysis. We used both univariate and multivariate analyses to evaluate the post-intervention patency of PTA by follow-up and explore the potential predictors.

Result: Postintervention primary and secondary patency rates at 12, 24, 36 months were 40%, 20%, 8%, and 71%, 41% and 26% respectively, with a mean total patency duration of 20.3 ± 11.5 months. Cox survival multivariate analysis indicated that the factors associated with post-intervention primary patency of AVF included race and age of fistulas while for post-intervention secondary patency of AVF included race and use of antiplatelet.

Conclusion: This study demonstrated that the risk factors associated with reduced post-intervention patency of AVF included race while the use of antiplatelet and older age of fistulas were found to be a protective factor for AVF patency post-intervention.

EP14

MIND YOUR ANGLE: RUPTURED CATHETER DURING CEREBRAL DSA

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Introduction: Cerebral vascular malformation covers wide variety of pathology with various presentations. It can originate from arteries or veins. Hence, to differentiate between them, there have been increase utilization of various imaging techniques including CT angiography (CTA), MR angiography (MRA) and digital subtraction angiography (DSA). Due to the increased application of imaging techniques, few complications develop post-procedure. Hereon, we presented a case of fracture catheter because of acute angle vascular sheath catheter which anticipated from multiple factors.

Report: A 24-year-old boy presented with recurrent headache for past 2 years. The headache was generalized and intermittent requiring analgesic to resolve symptoms. No neurological deficits. No history of trauma prior onset. CTA brain performed demonstrates linear enhancing hyperdensity in keeping with vessel in right frontal region. No communication between lesion with adjacent anterior cerebral arteries. No perilesional hypodensity to suggest cerebral oedema. There is little to none mass effect onto right frontal lobe. Subsequently, cerebral DSA performed to confirm type of vascular malformation. Initial vascular access via right radial artery puncture performed. However, there was no available small catheter to gain access through the right upper limb vessels. Eventually, right femoral artery was punctured to get access. Cerebral DSA was performed. Findings showed multiple tortuous beaded converging deep veins involving the right fronto-parietal lobes giving the appearance of caput medusa during venous phase and draining into branches of right internal cerebral vein. The normal cerebral arteries are well opacified with no feeding arteries into the tortuous beaded deep veins. These findings are in keeping with developmental venous anomaly. Unfortunately, during removal of glidewire, distal glidewire was fractured at level right common femoral artery. The vascular sheath inserted in right inguinal region is almost perpendicular to the vessel considering patient has a large torso as well as thick subcutaneous tissue above the vessel. Another puncture performed on left common femoral artery to gain access. A snare was used via left common femoral artery puncture and the fractured catheter was removed.

Conclusion: Fractured catheter is common complication in angiography procedure. Few complications in fractured wire during procedure as it can be a source of thrombosis or infections. Hence, a fractured catheter must be removed to avoid further morbidity. Considering the patient has a large size body, radial puncture should be considered with availability of small caliber catheter. With big size patient, one should be careful during femoral puncture and observe needle angle avoiding a steep angle. A diagnostic catheter is a delicate catheter which requires an operator to maneuver with care and anticipate complications.

EP15

CT Guided Intervention for Treatment of Pudendal Neuralgia

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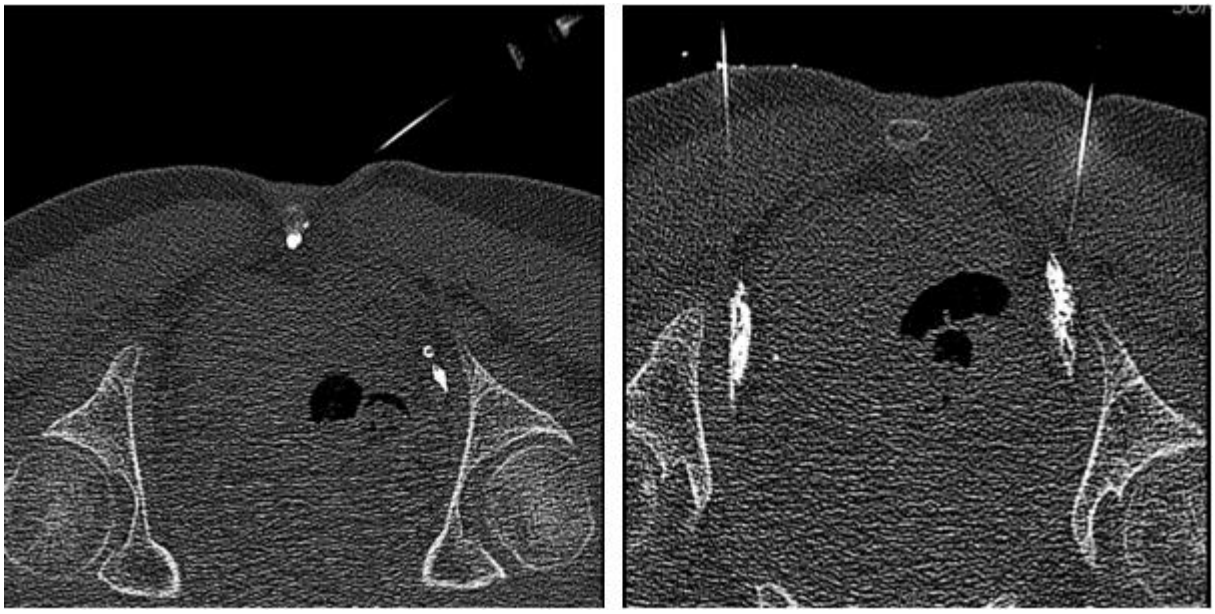
Introduction: Pudendal neuralgia (PN) manifests as chronic pelvic and perineal pain syndrome that originates from damage, inflammation, injury or irritation of the pudendal nerve. It is commonly a bilateral process with a characteristic perineal pain aggravated by sitting, which is present in over 50% of affected patients. There is a lack of certainty regarding the etiology and pathophysiology of PN, thus, remains a diagnosis of exclusion. Patients with symptoms of PN have traditionally been offered medical therapy consisting of anticonvulsant drugs and neuroleptic agents or more complex pelvic surgeries in severely symptomatic cases/ refractory to medical management. Today, CT guided Impar ganglion and pudendal nerve trunk steroid injection and CT guided pulsed radiofrequency (RF) of the pudendal nerve branches have emerged as minimally invasive treatment options for PN.

Materials: 22G spinal needle, Shincort 40mg, Lignocaine 5mg, Marcaine 5mg

Case Report: A 72-year-old lady, para 4, LCB 32 years ago, complains of pain in the perineum since the past 6 months. Pain was present around the urethra, vagina and anus. The pain was described to be on and off throughout the day, pain score 10/10, radiating in nature to both lower limbs with no definite relieving factors. Patient had a vaginal pessary inserted for prolapse in 2016, which was removed in 2022 because of discomfort. Local examination was unremarkable. MRI pelvis and colonoscopy were performed which revealed no significant abnormalities. A diagnosis of pudendal neuralgia was made, and the patient was subjected to CT guided Impar ganglion and pudendal nerve trunk steroid injection (Fig 1) which produced partial treatment response. There was an interval reduction in pain (score of 5-6/10) after the steroid injection. Three weeks later, in view of persistent symptoms, the patient was then planned for CT guided pulsed RF of bilateral pudendal nerves. There was significant improvement in symptoms (pain score of 2-3/10) post procedure. Oral medications were gradually tapered down and patient had satisfactory pain control post intervention. The patient is predisposed to long term follow up with no further deterioration of clinical condition.

Conclusion: CT guided intervention has emerged as a viable treatment option for PN in patients non-responsive or contraindicated to oral medications and unwilling for complex surgical methods. This approach has shown a positive response to pain control in managing a case of PN.



A B

Figure 1: Contrast opacifying the Impar ganglion (A) and pudendal nerves (B) in both sides of pelvis

EP16

PERCUTANEOUS LYMPHANGIOGRAPHY WITH SUCCESSFUL THORACIC DUCT EMBOLISATION IN CHYLE LEAKAGE FOLLOWING NECK SURGERY

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Introduction: Chyle leakage following lymphatic injuries in neck surgery is known as one of the rare potential complications. Although rare, chyle leakage can lead to serious problems, such as chylothorax, hypovolaemia, electrolyte imbalance, nutritional deficiency and immunosuppression. Conservative management includes adequate drainage, pressure dressings and dietary modifications. Secondary surgical management is to be considered should conservative management fail. Lipiodol lymphangiography is an option for diagnostic and therapeutic treatment with promising results, in addition to conservative and surgical intervention approaches.

Reports: 73 years old female diagnosed with papillary thyroid carcinoma with nodal and lung metastases. Total thyroidectomy with right modified radical neck dissection was done. Subsequent PET CT shows FDG uptake hence the patient underwent left modified radical neck dissection and right re-modified radical neck dissection. The second surgery was complicated with persistent chyle leakage which did not resolve with conservative management. She then underwent neck exploration which shows evidence of lymphatic injuries; however this also failed to resolve her persistent chyle leakage. Case was subsequently referred to Interventional Radiologist for diagnostic and therapeutic lipiodol lymphangiography. Lipiodol lymphangiography and concurrent lipiodol embolisation was done which shows evidence of thoracic duct leakage. Follow-up shows improving chyle leakage drainage which subsequently ceased. Patient then discharged well.

Conclusion: Chyle leakage due to lymphatic injuries is one of the rare complications that can develop after thyroid or neck surgery. There are limited studies on lymphatic embolization performed in cases of chyle leak post neck surgery. Lymphangiography may be used as a diagnostic and potential therapeutic approach for chyle leakage. Thoracic duct lipiodol embolization is an option for chyle leakage after neck surgery which has shown to be successful in this case study.

EP17

CASE REPORT: AN UNEXPECTED DETECTION OF A THYROID ARTERIOVENOUS MALFORMATION (AVM) IN A YOUNG LADY WITH THYMOMA

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Introduction: Vascular malformations of the thyroid gland are very rare and often accidentally diagnosed. In this poster, we present a case where this young lady presented with new symptoms while she awaited her operation for her recently diagnosed thymoma.

Results: This is a 22-year-old female with no previous illness. Initial presentation in March 2022 with hemoptysis for a month with occasional dyspnoea. She was then diagnosed with a thymoma (HPE proven) measuring up to 15cm. While she was planned for thymectomy, she developed new onset hoarseness of voice with increasing anterior neck swelling from July 2022. On examination noted left vocal cord palsy and she was subsequently diagnosed to have a large thyroid AVM with mass effect onto the trachea. A multidisciplinary discussion was made and decided for embolization of the thyroid AVM prior to total thyroidectomy, before eventually proceeding with thymectomy. Thyroid embolization was done by embolising bilateral superior thyroid artery, left inferior thyroid artery, and feeder branch from right internal thoracic artery using Histoacryl 20%. Also performed embolization of possible thymic artery arising from the arch of aorta using PVA 355-500 micrometer and Nester microcoil 4mm x 7cm. Post-embolization angiogram showed a near total occlusion of nidus, with patent bilateral draining veins and bilateral internal carotid arteries. Subsequently, total thyroidectomy and thymectomy were performed in stages and the patient is currently well.

Conclusion: Thyroid AVM is a considerably rare condition. In this case, the patient was initially diagnosed with another pathology, which is the thymoma with no neck symptoms. The subsequent development of new onset neck symptoms led to the diagnosis of the thyroid AVM which impeded the initially planned thymectomy. The embolization was successful and led to the subsequent completion of total thyroidectomy and thymectomy.

EP18

CORRELATION BETWEEN ULTRASOUND FEATURES, CYTOLOGICAL CLASSIFICATION AND TECHNICAL DIFFICULTY TO OBTAIN SAMPLE IN PATIENTS WITH THYROID NODULES: THE AL-SULTAN ABDULLAH HOSPITAL EXPERIENCE

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Purpose: Nodules in the thyroid are common especially with increasing use of imaging in patients with thyroid-associated symptoms and signs. We aim to correlate ultrasound findings based on thyroid imaging and reporting data system (TIRADS) with cytological findings (Bethesda classification) and difficulty to obtain satisfactory samples (number of attempts).

Materials and Methods: Retrospective study on 111 patients who underwent ultrasound assessments followed by fine needle aspiration cytology (FNAC) of the thyroid nodules. A total of 132 nodules with sufficient cytological assessment were analysed.

Results: There was weak positive correlation between the TIRADS and Bethesda scores (r = 0.167). Malignant risk of TIRADS 3, TIRADS 4 and TIRADS 5 nodules were 9%, 6% and 21% respectively. Most of the nodules are solid (74%), with low malignant risk of 9%. Mixed solid-cystic nodules had 20% risk of malignancy. Most of these solid-cystic nodules had punctate echogenic foci within. Hypoechoic nodules have 18% malignant risk in our series compared to 3% malignant risk in hyperechoic nodules. 15% of nodules with punctate echogenicity showed malignant changes. Nodules without calcification showed 8% malignant risk. There was poor correlation between the TIRADS and width of the nodules (r = 0.04). The percentage of increased attempts of aspiration (>3 times) was almost similar 20% for solid-cystic nodules (20%) and solid nodules (19%). Nodules without calcification (12%) required less aspiration attempts compared to nodules with calcification. Percentage of nodules with macrocalcification, rim calcification and punctate echogenic foci needing more than 3 aspiration attempts were 25%, 25% and 20% respectively.

Conclusions: Poor correlation was observed between the TIRADS and Bethesda systems. However, ultrasound features with higher malignant risk such as hypoechoic nodules as well as solid cystic nodules with punctate echogenic foci should have FNAC performed.