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PRE - OPERATIVE EMBOLIZATION OF PHYLLODES BREAST TUMOR IN PREGNANT PATIENT: PRE-PROCEDURE SIMULATION PROTOCOL AND RADIATION SAFETY MEASURES

K. Hamzah[1], L.S. Ch'ng[1,2], A.S. Mahfudz[1,2], H.L. Tan[1,2], M.M. Zainal Abidin[1]
[1]Department of Radiology, Hospital Al-Sultan Abdullah Universiti Teknologi MARA, Selangor, Malaysia
[2]Department of Radiology, Faculty of Medicine, Universiti Teknologi MARA Sungai Buloh Campus, Selangor, Malaysia.

Phyllodes tumour is a rare and benign connective tissue breast tumors with malignant potential. We report a case of a 40-year-old female pregnant at 16 weeks with an enlarging, large left phyllodes breast tumor (>20 cm). Patient was referred for pre-operative embolization prior to mastectomy. Given the potential risks of ionizing radiation to the developing fetus, pre-procedure simulation was performed to formulate radiation protection measures as well as estimate fetal dose to facilitate counseling. A phantom was created with lead apron to protect the "fetus". Dose to "fetus" and left breast was measured using real time dose monitoring system during fluoroscopic screening (10 seconds, 1 minute and 5 minutes), angiographic runs (10 seconds) and cone beam computed tomography (CBCT). During simulation, there was nil dose to "fetus" during screening from radial approach while dose of 0.016 mSV was detected via femoral approach. Continuous screening of 5 minutes incurred dose of 2.598 mSv to the breast while dose to "fetus" was 0.018 mSv. Cone beam CT incurs low dose to "fetus" (0.018 mSv). A multidisciplinary team consisting of interventional radiologist, radiographer, medical physicist, surgeon and obstetrician collaborated for counselling and implementation of radiation protective measures such as radial approach, abdominal shielding, short fluoroscopic times, low-dose fluoroscopy settings, pulsed fluoroscopy, low acquisition frame and strategic collimation. Left radial approach embolization was performed and fetal monitoring post-procedure showed no signs of distress. The estimated dose during embolisation was 0.104 mSv to fetus. Total exposure remained well below the 50 mGy threshold associated with deterministic effects. This case highlights the importance of radiation dose data to enhance patient understanding and support shared decision making in sensitive cases involving pregnancy. Radial approach, appropriate shielding and short fluoroscopic times are critical to ensure low dose during procedures in pregnancy.

ENDOVASCULAR TREATMENT OF INADVERTENT CAROTID ARTERY PUNCTURES: A CASE SERIES FROM PPUKM EXPERIENCE

R.Z. Rusli[1], M.Z. Abdul Muien[2], I.A. Zainal[3], N.F. Nik Fuad[4], Y.Y. Leong[4], N.A. Nik Ismail[4], N.Y. Yaacob[4]

[1]Department of Medical Imaging, Hospital Sultan Zainal Abidin (HoSZA), Universiti Sultan Zainal Abidin (UniSZA), 21300 Kuala Nerus, Terengganu, Malaysia

[2]Department of Radiology, Block C, Faculty of Health Science, Universiti Malaysia Sabah (UMS), Jalan UMS, 88400 Kota Kinabalu, Sabah, Malaysia

[3]Department of Radiology, Hospital Tunku Ampuan Besar Tuanku Aishah Rohani, Hospital Pakar Kanak-Kanak (HPKK) UKM, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia

[4]Department of Radiology, Hospital Canselor Tuanku Muhriz (HCTM), Universiti Kebangsaan Malaysia (PPUKM), Jalan Yaacob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia

This case series examines the endovascular management of iatrogenic common carotid artery injuries secondary to central venous catheterization. Immediate recognition and appropriate intervention are essential to mitigate the risk of catastrophic complications, including cerebral ischemia, hemorrhage, and death. The first case involved closure of a carotid-jugular fistula using a self-expanding covered stent, restoring vessel patency without the need for open surgical intervention. The second case presented with direct arterial perforation and active extravasation, managed by deployment of a covered stent to maintain luminal patency and achieve hemostasis. The third case encompassed a complex case of near bifurcation injury involving the brachiocephalic and right common carotid arteries, necessitating simultaneous placement of kissing stents to preserve both cerebral and peripheral flow. Technical challenges included the dynamic mobility of cervical vessels, necessitating meticulous device selection, sizing, and deployment under angiographic guidance. Particular attention was directed toward minimizing baroreceptor-mediated hemodynamic disturbances during balloon angioplasty near the carotid sinus. No major peri-procedural adverse events were observed. These findings underscore the efficacy of endovascular techniques as first-line therapy in the management of iatrogenic carotid injuries, offering definitive treatment with reduced morbidity compared to open surgical repair.

SPONTANEOUS REGRESSION OF CAVERNOMA: A RARE PHENOMENON ON SERIAL MRI BRAIN IMAGING

H. Paimin Abdullah Yusuf[1], I.B. Abu Bakar[1]
[1]Department of Radiology, Sultan Ahmad Shah Medical Center @ IIUM, Kuantan, Pahang, Malaysia

Introduction: Cavernomas are vascular malformations that usually remain stable or enlarge due to hemorrhages. Spontaneous regression is extremely rare. Recognition of such behavior is crucial for appropriate management strategies.

Case Report: A 38-year-old male presented with focal seizures. Initial MRI demonstrated a right parietal cavernoma characterized by a "popcorn" appearance and blooming artifact on GRE sequences. Serial follow-up MRIs at six and twelve months showed progressive lesion shrinkage without any intervention. The patient remained seizure-free with medical management alone.

Conclusion: Spontaneous regression of cavernomas, though rare, can occur. Serial imaging plays a vital role in monitoring lesion dynamics and helps avoid unnecessary surgical interventions in asymptomatic patients.

OPTIMIZING RADIOGRAPHER INVOLVEMENT IN TACE PROCEDURES USING EMBOLIZATION GUIDANCE: A COMPARATIVE ANALYSIS

H. Zukefli[1], M.S. Rosnan[1], A. Ibrahim[1], N.A. Razmi[1], N.A. Ibrahim[1]
[1]Radiology Department, Hospital Pakar Universiti Sains Malaysia, Kota Bahru, Kelantan, Malaysia

Introduction: Transarterial Chemoembolization (TACE) is a critical interventional procedure in the management of hepatocellular carcinoma (HCC), requiring precision in the delivery of therapeutic agents. The adoption of embolization guidance software, such as Embolization Plan, has significantly improved procedural accuracy and safety. Radiographers are central to the success of these advancements, optimizing imaging protocols and assisting with feeder vessel identification. This comparative analysis evaluates the effect of Embolization Plan on procedural time and radiation dose during TACE, and to highlight the enhanced role of radiographers in interventional radiology workflows.

Method: A retrospective analysis was conducted comparing data from:
2024: TACE without Embolization Plan (n=3)
2025: TACE with Embolization Plan (n=3)
Samples were randomly selected using different angiography machines. Average procedure times and radiation doses were analyzed.

Result:

Year	Embolization Plan Used	Average Procedure Time (minutes)	Average Radiation Dose (mGy)
2024	No	71.1	2243.4
2025	Yes	37.27	1634.07

Key Findings:
Procedure Time Reduction: 47.6%
Radiation Dose Reduction: 27.2%

Conclusion: Implementation of Embolization Plan during TACE procedures substantially decreases both procedural duration and radiation exposure. Radiographers, through advanced imaging techniques and technological proficiency, are instrumental in achieving these improvements. Ongoing professional development and adoption of image-guidance tools are essential for future interventional radiology practices.

UPPER ARM CHEMOPORT PLACEMENT IN BREAST CANCER PATIENTS: TECHNICAL FEASIBILITY AND PATIENT-CENTERED OUTCOMES

N.F. Liyana[1], L.S. Ch'ng[1,2], H.L. Tan[1,2], A.S. Mahfudz[1,2]
[1]Department of Radiology, Faculty of Medicine, Universiti Teknologi MARA Sungai Buloh Campus, Selangor, Malaysia.
[2]Department of Radiology, Hospital Al-Sultan Abdullah Universiti Teknologi MARA, Selangor, Malaysia

Introduction: Central venous access is critical for administering chemotherapy in breast cancer patients. Traditional chest wall ports may not be ideal for patients with bilateral breast cancer ,for reasons such as surgical reconstruction, radiation therapy, or lymphedema. Upper arm chemoports have emerged as a viable alternative.

Case Series:
Case 1: A 54-year-old woman with metastatic breast cancer has undergone left mastectomy and axillary clearance with adjuvant chemotherapy and radiotherapy. Later, she experienced inflammatory changes over her right breast and left neck which require a chemoport implanted in her right arm for further chemotherapy.
Case 2: A 59-year-old lady was diagnosed with right breast carcinoma, underwent right mastectomy and axillary clearance with chemotherapy. However, post-operative had persistent right axillary nodes, which require further radiotherapy to right axilla and chest wall. Noted lesion/lipoma adjacent to left jugular vein. Left upper arm chemoport inserted for her adjuvant chemotherapy.
In our centre, upper arm chemoport placement is performed under local anesthesia. Using ultrasound guidance, the basilic vein is accessed, and catheter is advanced into the superior vena cava under fluoroscopic guidance with help of glidewire. A subcutaneous pocket is then created on the mid upper arm on top of the biceps muscle for easy access and needling.

Results: Both patients reported overall comfort with upper arm chemoports, particularly appreciating the discreet placement away from the chest and surgical sites. The location allows for improved mobility, easier dressing changes and self-care, and minimal interference with daily activities such as sleeping or wearing undergarments. They experienced mild discomfort and brusing at the port site post procedure however resolved within the first week. This technique lowers the risk of local complications, avoids surgical fields and radiation zones

Conclusion: Arm chemoports represent a technically feasible, safe, and patient-preferred alternative for breast cancer patients especially in bilateral disease.

CONTRAST STAINING POST-THROMBECTOMY: A DIAGNOSTIC PITFALL MIMICKING HEMORRHAGIC TRANSFORMATION

T.M. Teoh[1], Z.W. Chua[1], K.B. Loh[1]
[1]Department of Radiology, Penang General Hospital, Jalan Residensi, 10450 Georgetown, Penang, Malaysia

Contrast staining can mimic intracranial hemorrhage following mechanical thrombectomy, posing a diagnostic challenge. We present a case of a 70-year-old woman who underwent mechanical thrombectomy for acute left middle cerebral artery (MCA) territory infarct. Post-procedure imaging revealed a hyperdense area in the left basal ganglia, initially suspected to be hemorrhagic transformation. However, delayed imaging confirmed contrast staining, highlighting the importance of differentiating between these entities. This distinction is critical for appropriate clinical decision-making, avoiding unnecessary interventions and delays in initiating anticoagulation. As contrast staining is a transient and benign phenomenon that typically resolves within 24-48 hours, careful interpretation of post-thrombectomy imaging is crucial to optimize patient management.

WUNDERLICH SYNDROME IN PREGNANCY: NAVIGATING THE DIAGNOSTIC AND THERAPEUTIC DILEMMAS

Z. I. Zulkifli[1], M.Z. Mohamed Muein[2], N.A. Nik Ismail[1], S.A. Mohamed Mukari[1]
[1]Department of Radiology, Hospital Canselor Tuanku Muhriz, Bandar Tun Razak, Selangor, Malaysia
[2]Department of Radiology, Universiti Malaysia Sabah, Jalan UMS, Kota Kinabalu, Sabah, Malaysia

Introduction: Wunderlich syndrome is characterized by spontaneous non-traumatic renal haemorrhage which is commonly caused by a myriad of aetiologies with tumours such as renal angiomyolipoma (AML) being the commonest cause. Pregnancy has been identified as a risk factor for AML rupture due to its hormonal and physiological influences, presenting a unique challenge when it comes to their management.

Report: A pregnant patient in her 30s presented with sudden left abdominal pain at 15 weeks of gestation with no history of previous trauma. Ultrasound showed a large well defined hyperechoic lesion in the mid pole of the left kidney with surrounding perinephric hematoma. MRI abdomen showed a heterogenous lobulated renal mass arising from the mid pole of the left kidney with surrounding acute perinepheric hematoma, supplied by segmental arteries in keeping with an actively bleeding AML. The patient underwent angioembolization at 15 weeks of pregnancy with limited radiation exposure to the fetus and has recovered well post-procedure. She continued with her pregnancy and is due to deliver June of 2025.

Conclusion: In cases of bleeding AML in pregnant patients, an individualized approach with multidisciplinary team management is necessary to ensure both maternal and foetal safety while optimizing the outcomes in this unique patient population.

LATE, BUT NOT TOO LATE: REAL-EXPERIENCE OF EXTENDED WINDOW THROMBECTOMY

N.S. Abd Rasad[1], N. Mohamad[1], J.L. Lim[1], T.L. Foo[1], N.D. Osman[2]
[1]Department of Radiology, School of Medical Sciences, Health Campus, Universiti Sains Malaysia, Kelantan, Malaysia.
[2]Department of Biomedical Imaging,Advanced Medical & Dental Institute, Universiti Sains Malaysia, Pulau Pinang, Malaysia.

Stroke is a major public health issue in Malaysia, ranked as the third leading cause of death. In 2019, approximately 47,911 new stroke cases were recorded, resulting in 19,928 fatalities. Mechanical thrombectomy (MT) is a standard treatment for acute ischemic stroke (AIS) due to large vessel occlusion (LVO), typically performed within six hours of symptom onset. For acute occlusion of a major artery with extended time window (6–24 hours), mechanical thrombectomy has been shown to offer greater benefits than medical treatment, particularly in patients with a mismatch between clinical symptoms and the ischemic core. However, the efficacy of MT is not fully explored in practical settings for extended time window. This study aims to present our center's experience with endovascular thrombectomy (EVT) beyond the extended time window. Baseline imaging including non-contrast CT brain, CTA brain, and CT brain perfusion were done prior to MT. Stroke severity was assessed with the National Institutes of Health Stroke Scale (NIHSS). Patient clinical outcomes such as functional recovery, mortality, and complications like intracranial hemorrhage, were evaluated through serial CT brain imaging and assessment. We reported 3 case series of mechanical thrombectomy in extended time window more than 24 hours with variable outcome.

A SILENT VASCULAR TIME BOMB: A RARE PULMONARY ARTERY PSEUDOANEURYSM FROM METASTATIC ELBOW EPITHELOID SARCOMA IN A YOUNG ADULT TREATED WITH AMPLATZER PLUG EMBOLIZATION

M.A.K. Md Shamuddin[1], A.A. Halim Lim[1]
[1]Department of Radiology, Kulliyyah of Medicine, International Islamic University Malaysia (IIUM), Kuantan, Pahang, Malaysia

Pulmonary artery pseudoaneurysm (PAP) is an exceedingly rare condition with high mortality rate if left untreated. Often detected incidentally on imaging, PAPs can present with massive haemoptysis upon rupture. Trauma and infectious diseases are the most common causes, while less frequent etiologies include vasculitis, neoplasm, congenital disease, and pulmonary hypertension. CT angiography remains diagnostic gold standard, aiding in treatment planning. We present a potentially life-threatening case of an intratumoral PAP in an 18-year-old man with underlying metastatic right elbow epithelioid sarcoma. He presented with shortness of breath and tachypnoea due to malignant pleural effusion secondary to lung metastases. Contrast-enhanced CT thorax incidentally revealed a large necrotic right lung mass with an intratumoral pseudoaneurysm arising from the right interlobar pulmonary artery. Although PAPs can be clinically silent, they typically manifest with symptoms like dyspnoea, chest discomfort, or massive haemoptysis. Rupture can lead to catastrophic pulmonary haemorrhage, necessitating timely intervention. Definitive treatment comprise of surgical resection and endovascular embolization. In this case, the pseudoaneurysm was successfully embolised using an Amplatzer vascular plug, .Post-procedural imaging confirmed complete sac exclusion with no active haemorrhage. We will like to discuss our technique in achieving a successful delivery of a vascular plug to the site of pseudoaneurysm.