MYSIR's Abstracts 3
Malaysian Society of Interventional Radiology

DOI: https://doi.org/10.32896/tij.v3n4.37-42
Published: 31/12/2023

EP07

DELAYED PRESENTATION OF POST-TRAUMATIC INTRAHEPATIC ARTERY PSEUDOANEURYSM WITH SUCCESFUL EMBOLISATION USING N-BUTYL CYANOACRYLATE (NBCA)

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Introduction: Hepatic artery pseudoaneurysm is a rare complication of post abdominal blunt injury. Majority of the cases are of extrahepatic in origin which accounts for 80 % of cases with delayed onset. Despite the delay in presentation, it warrants prompt treatment as it could lead to potentially life-threatening complication including pseudoaneurysm rupture (risk up to 14%). Multiple embolic material has been described in the literature for embolization in which coil is the commonly used material. Hereon, we are describing a case of delayed presentation of hepatic artery pseudoaneurysm after an abdominal blunt trauma which successfully embolized with N-Butyl Cyanoacrylate (NBCA).

Report: A 20 year old lady alleged motor vehicle accident and sustained multiple intra-abdominal solid organ injury which was treated conservatively. Post-trauma day 18, she again presented to the hospital with the complaint of hematemesis, epigastric pain, jaundice, and dyspnea. The liver function test was deranged with hyperbilirubinaemia. The CT angiogram of the liver shows pseudoaneurysm arising from a branch of right intrahepatic artery. She was then referred to interventional radiology which findings were confirmed by digital subtraction angiography of the coeliac artery and successfully embolize using glue (N-Butyl Cyanoacrylate) without complication. Follow-up imaging done approximately 3 months post-embolization shows post-embolization changes of the right intra-hepatic artery pseudoaneurysm.

Conclusion: Intrahepatic artery pseudoaneurysm is indeed a rare complication post-abdominal blunt injury which requires timely intervention for the risk of rupture. Endovascular embolization is a safe and effective choice of treatment with N-Butyl cyanoacrylate as a viable choice of embolic agent.

EP08

THE EFFECTIVENESS OF EMPIRIC TRANSARTERIAL GLUE EMBOLIZATION (TAGE) OF GASTRODUODENAL ARTERY (GDA) FOR HIGH RISK BLEEDING DUODENAL ULCER - A RETROSPECTIVE STUDY

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Purpose: To conduct a clinical audit on clinical outcome of empiric transarterial glue embolization (TAGE) of gastroduodenal artery (GDA) for high risk bleeding duodenal ulcers to evaluate treatment efficacy.

Materials and Methods: All patients treated for bleeding duodenal ulcers between June 2019 and June 2023, in a single tertiary center (Penang General Hospital) were identified based on intervention radiological reports. Patients with bleeding duodenal ulcers underwent empiric transarterial glue embolization (TAGE) of gastroduodenal artery (GDA) following endoscopic hemostasis were included. Information was extracted from patients' medical records, endoscopic and radiological reports. Data was computed and analyzed using Statistical Package for Social Sciences (SPSS).

Results: During the study period, a total of 26 patients were planned for empiric transarterial glue embolisation (TAGE) of gastroduodenal artery (GDA) for bleeding duodenal ulcer. The median age was 68 with 68% male (n=18) and 32% female (n=8). A total of 25 patients with duodenal ulcers of Forrest 1a (n=5), 1b (n=12), 2a (n=4), 2b (n=3) and 2c (n=1) who successfully underwent prophylactic TAGE of GDA were included in this study. It has a high technical success rate of 96.2% (n=25) with only one case of failure in cannulation due to tortuous arterial anatomy. Clinical success rate amongst the 25 patients who successfully underwent empiric TAGE of GDA was 84% (n=21) with only four patients developed rebleeding and required repeated endoscopic clipping. One of the four patients succumbed secondary to refractory bleeding.

Conclusion: Empiric transarterial glue embolisation (TAGE) of gastroduodenal artery (GDA) can be a useful adjunct treatment option in high risk bleeding duodenal ulcer with high technical and clinical success.

EP09

CRYOABLATION OF LUNG METASTASES IN AN ADULT WITH DERMATOFIBROSARCOMA PROTUBERANS OF RIGHT THIGH

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Introduction: Lung cancer cryoablation uses extreme cold to destroy cancerous tumors by freezing. Providing high local lesion control, lung cancer cryoablation is associated with good overall long-term survival and minimally significant complications. It provides a curable treatment for medically inoperable lung lesions less than 3cm in size.

Results: A 60-year-old gentleman with underlying dermatofibrosarcoma protuberans of right thigh with lung metastases underwent excision of right thigh tumour and completed radiotherapy to his right thigh. Contrast enhanced CT done shows two lung nodules in the posterior segment of right upper lobe and posterior segment of right lower lobe measuring 2.2x2.5cm and 2.5x1.9cm respectively**.** Ablation was performed under general anesthesia.With CT guidance, two Slimeline CryoProbe (2.4 mm x 15 cm) were inserted into the target lesion and cryoablation was performed applying a three-cycle freeze–thaw phase protocol. Each procedure was monitored with a non-contrast CT imaging at 3 to 5 minutes intervals to visualize the evolving ablation zone with the goal of achieving a circumferential margin beyond the tumor of 5 mm. After cryoablation needles were removed, CT images were obtained to assess the overall ablation zone and any potential complications. Patient-specific follow-up for the study was done within the first week, at 1, 3, 6, and 12 months. Patient was clinically evaluated at 1 month from the last ablation to assess safety of the procedure and its impact on quality of life.

Conclusion: Contrasted CT after 2 years of follow-up showed a complete response of both lung nodules and the shrinkage of the ablation scar. Cryoablation for the treatment of lung metastases in patients with sarcoma for early local tumor control is promising.

EP10

ENDOSCOPIC GUIDED BILIARY EMBOLIZATION FOR BILE LEAK

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Introduction: Bile leak can be caused by iatrogenic injury from surgical procedure; or after blunt/penetrating trauma. We present a case of endoscopic guided biliary embolization for bile leak after initial operation and endoscopic stent placement in a grade V liver injury patient due to road traffic accident.

Results: A 22-years-old patient who alleged road traffic accident and sustained grade V live injury and grade II splenic injury had undergone laparotomy and liver laceration repair. Multiple operations had been performed on this patient as the patient was complicated with burst abdomen and intestinal obstruction secondary to the severe adhesion. During the admission, noted patient had persistent high output from the post-operative drainage tube with bile content. Endoscopic retrograde cholangiopancreatography (ERCP) was performed with plastic stent insertion. However, the drainage output was still persistently high. ERCP and CT were performed and showed bile leak with biloma formation. After multidisciplinary team discussion, proceeded with the hepatobiliary team for biliary embolization during the ERCP. The procedure was successfully performed. Drainage output is reduced. Repeated MRCP showed smaller biloma. And the patient was asymptomatic.

Conclusion: The main treatment for bile leak is endoscopic treatment such as sphincterotomy and endoscopic stent; or percutaneous drainage which helps to divert the biliary flow. If failed in diverting the biliary flow using a stent, biliary embolization under ERCP guidance is another useful method.

EP11

THE UNEXPECTED RAZOR SVC

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Introduction: Patients with end stage renal disease are frequently referred to the interventional radiology team pertaining to their hemodialysis access such as central venous catheter placement and plasty of stenotic AVF vascular segments. Venoplasty is a very common procedure. Complications such as vascular tear, embolism or ruptured balloon may occur, but with a low incidence rate.

Results: Patient with history of left brachiobasilic fistula and SVC stenosis, successful plasty done in 2018, presented with inadequate dialysis. Fistulogram and subsequent central venogram demonstrated narrowing at distal venous limb of AVF and left brachiocephalic-SVC junction. Central venoplasty was performed. However, prior to reaching nominal balloon pressure, there was sudden loss of inflation pressure and contrast dispersion seen in fluroscopy, indicative of balloon rupture. The ruptured balloon was retrievable, and a longitudinal tear was discovered. Re-attempt central venoplasty was done and the similar complication re-occurred. However, this time the balloon was non retrievable despite multiple attempts. Vascular Surgeon was called in and case was posted to Emergency OT for exploration and removal of balloon catheter. Upon retrieval, the balloon was noted crumpled upon itself, suggestive of a circumferential tear. A temporary central venous catheter was inserted the next day and plain CT Thorax done in the same setting revealed a tubular shaped calcified plaque with a tapered edge projecting from brachiocephalic- SVC lateral wall which was likely the cause of our previous ruptured balloons.

Conclusion: Calcified plaque within the SVC is rare. However, a clinical suspicion should be raised when a balloon catheter ruptures during a central venoplasty procedure. Although factors such as operator technique and manufacture defect can be a possible aetiology, the patient's underlying morphology is also a crucial cause that needs to be considered to avoid further complications and unnecessary invasive interventions.

EP12

CONCURRENCE CASE OF RECURRENT ARTERY OF HEUBNER ANEURYSM WITH PLANUM SPHENOIDALE MENINGIOMA

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INTRODUCTION: The association between meningioma and aneurysms is a rare event and usually is incidentally diagnosed. We present a concurrence case of recurrent artery of Heubner aneurysm with planum sphenoidale meningioma, in which the aneurysm was successfully treated with endovascular embolization.

CASE REPORT: A 53-year-old lady presented with blurring of vision. MRI brain showed avidly enhancing meningioma at planum sphenoidale with incidental and suspicious finding of aneurysm at right A1 region. Cerebral angiogram was done which showed a saccular aneurysm at the A1 segment of right anterior cerebral artery, likely arising from the recurrent artery of Heubner. After comprehensive pre-treatment planning and discussion with the neurosurgery team, the decision to proceed with endovascular treatment was made prior to the meningioma excision. Embolisation was done using MicroPlex coils (7mm × 22cm, 3mm × 10cm, 2mm x 4cm), Optima Helical coils (2mm x 8cm, 2mm x 6cm), Target Helical coil (3mm x 8cm) and EV3 coil (5mm x 15cm). Post coiling angiogram showed successful embolization with complete occlusion of the aneurysm. The patient was discharged well after 2 days post embolization with no neurological deficit.

CONCLUSION: The isolated occurrence of the recurrent artery of Heubner is already a rare case, and the simultaneous presence of the aneurysm with a meningioma is an even rarer occurrence.
The recurrent artery of Heubner was successfully treated with endovascular treatment. Staged embolization of the aneurysm prior to the tumor excision can be performed depending on the clinical presentation and anatomical relation of the aneurysm to the tumor.