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Coil Embolisation for Endovascular Treatment of Proper Hepatic Artery Aneurysm Using the Balloon Occlusion Technique

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Introduction: Endovascular repair (ER) as a minimally invasive approach can be effective for treating hepatic artery aneurysm (HAA) with gratifying results. Microcoil embolisation is the main technique used in ER. However, the coil embolisation of a large proper HAA (PHAA) with a very wide neck tends to be extremely troublesome owing to the limited length of the inflow and outflow artery. Moreover, it is difficult because of rapid blood flow in the proper hepatic artery (PHA) and the difficulty in preserving its branch flow. Microcoil embolisation of the inflow and outflow of a PHAA with the balloon occlusion technique through an originally developed single guiding sheath system was performed successfully.

Report: A 73 year old woman was diagnosed with large PHAA (65 mm) by computed tomography examination. The PHAA was successfully treated by endovascular embolisation with microcoils using the balloon occlusion technique through a single guiding sheath system.

Discussion: This method is safe and effective for the treatment of a large PHAA.

Posterior Gastric Artery Aneurysm

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Introduction: Aneurysms of small abdominal vessels are extremely rare; however, even minor aneurysmal accessory arteries can rupture, leading to potentially fatal consequences. The purpose of this paper is to report a case of coil embolisation of an aneurysmal posterior gastric artery.

Case presentation: The authors describe the case of a 66 year old female patient with an aneurysm of the posterior gastric artery. Coil embolisation was performed. The six month follow up computed tomography angiogram revealed exclusion of the aneurysm.

Discussion: The presented case is exceedingly rare. This type of aneurysm has to be kept in mind as a possible cause of bleeding, despite the limited information regarding their natural history.

Conclusion: Owing to the safety and applicability of the endovascular technique, it is nowadays probably the best treatment alternative for this type of aneurysm.

An Alternative Technique to Achieve Haemostasis During PEVAR Using Perclose ProGlide

Giuseppe Baldino, Federica Persi, Paolo Mortola, Amerigo Gori

Introduction: Percutaneous endovascular abdominal aortic aneurysm repair (PEVAR) using the Perclose ProGlide suture mediated closure device is currently performed on a global scale. A safe, effective, and cheap technique for achieving haemostasis during PEVAR is described that allows the reversible downsizing of the arteriotomy, without using any other devices.

Technique: The procedure consists of pulling the blue thread of the pre-implanted ProGlide, advancing the knot close to the arterial wall by pushing it with the dilator of a small introducer sheath, and maintaining the system under tension by grasping the end of the blue thread with a haemostat until bleeding control is achieved.

Discussion: Seventeen PEVAR femoral access downsizing procedures have been performed between February and June 2018 and no complications were observed. The technique could be useful in everyday practice and has now become the author's standard practice.

Surgical Treatment of a Patient With Nutcracker Syndrome via Transposition of the Left Renal Vein

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Introduction: Nutcracker syndrome (NCS) is caused by compression of the left renal vein (LRV) between the aorta and the superior mesenteric artery (SMA) where it passes in the fork formed at the bifurcation of these arteries. NCS leads to LRV hypertension, resulting in left flank and abdominal pain, with or without haematuria and pelvic ureteral varices.

Report: The patient was a young female with diagnostic criteria of NCS, with severe clinical manifestations. The patient underwent transposition of the LRV approximately 3.0 cm below the original anatomic site and was anastomosed to the inferior vena cava (IVC) outside the meso-aortic compression zone.

Conclusion: Although NCS is not as common as other clinical scenarios, it may be encountered by physicians in a variety of disciplines, and can cause substantial morbidity and mortality rates. This report addresses the surgical

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approach used in a particular case, as well as the possible complications and outcomes if not treated in due time.

Underwater Sonography of Leg Veins

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Objectives: Hydrostatic compression (HC) occurring during body immersion is considered beneficial for venous return from the lower limbs. No study has evaluated the effects of HC on the veins of the lower limbs using duplex ultrasound (DU). The purpose of this study was to use DU to evaluate the morphology and flow of the leg veins during immersion.

Design: The femoral and great saphenous veins were evaluated before and during immersion in a specifically built pool, in normal and varicose limbs.

Results: HC reduces vein size in both normal and varicose limbs. During immersion spontaneous flow increases whereas when present, blood reflux decreases.

Discussion: This pilot, proof of concept study has demonstrated the feasibility of DU investigation of leg veins during immersion. Larger series of underwater DU evaluations of normal and varicose legs are necessary to quantify and better explain the effects of HC on the veins of the lower limb.

Foam Sclerotherapy Augmented Phlebectomy (SAP) Procedure for Varicose Veins: Report of a Novel Technique

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Introduction: While traditional ambulatory phlebectomy (AP) is a safe and effective procedure, few adverse effects such as hematoma, bleeding, bruising and nerve injury have been reported. To improve AP and to reduce some of these adverse events, herein we report a novel technique – Foam Sclerotherapy Assisted Phlebectomy (SAP).

Report: The details of the above technique, along with the potential advantages and limitations will be discussed.

Discussion: Foam sclerotherapy and DUS act as valuable adjuncts to traditional AP. SAP increases precision and creates additional venospasm leading to reduced bruising, reduced nerve injury and sclerosis of residual vein segments.

Axillary Artery Entrapment After Neck of Humerus Fracture

Regent Lee, Patrick Lintott

Substent Anchor Technique for Recanalisation of a Full Metal Jacket Femoropopliteal In-Stent Occlusion

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Purpose: To report the endovascular treatment of a full metal jacket (FMJ) femoropopliteal chronic total occlusion (CTO) using a new ancillary retrograde technique.

Case report: An 80 year old woman with type 2 diabetes presented to the Diabetic Foot Clinic with critical limb ischaemia with tissue loss in the right leg. Her comorbidities included coronary artery disease, morbid obesity, hypertension, dyslipidaemia, and active smoking habit. The patient had been treated at another hospital by femoropopliteal FMJ stenting six years before this presentation. The duplex ultrasound showed a full length in-stent re-occlusion. An antegrade recanalisation was attempted via contralateral femoral access, but was unsuccessful. An ultrasound guided retrograde puncture of the popliteal artery in the P2 segment was performed very close to the distal occluded stent. A 0.018 guidewire was pushed in the substent plane, functioning as an anchor to achieve a stable system. The FMJ was then retrogradely recanalised with a second guidewire. The procedure was completed by antegrade angioplasty with drug coated balloons.

Conclusion: The substent anchor technique can help to achieve stability even if close to the occluded stents, and spares the distal landing zone for surgical revascularisation if the endovascular approach fails. This technique could be useful in retrograde treatment of long in-stent CTO.

Vascular Surgery Fellowships: Comparison of Two Programmes in Canada and the UK

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