

## Abstracts from Issue 44 of EJVES Short Reports<sup>☆</sup>

Editor: Jean-Baptiste Ricco

### Factors Determining Seasonal Variations in Varicose Vein Surgery

Wolfgang G. Mouton and Christian Amonn

**Objectives:** Varicose vein operations are traditionally performed during the winter season because of supposed advantages during post-operative care. This prospective study aimed to investigate how, and on what grounds, patients and physicians time varicose vein surgery.

**Methods:** Unselected patients attending a consultation for varicose vein surgery at a Regional Hospital in Thun, Switzerland were asked to fill out an anonymous and standardised questionnaire to register the C of CEAP, age, and gender and to understand the drivers behind the timing of the actual intervention. The five main criteria were: job, workplace; symptoms, prevention; family, leisure, sports; season; and other.

**Results:** Between May 2015 and April 2017 (a 24 month period spanning two full seasonal cycles) 153 consecutive patients were included and returned 153 questionnaires for analysis. The actual timing of varicose vein surgery correlated inversely with the average temperatures measured in Thun. Among men ( $n = 65$ , 43% of the study population), job requirements were the most frequent determinant (41% of cases) of the operating day. Among women, by contrast, symptoms and prevention were named most often (32% of cases) as the leading motivation for surgical timing. Although for both men and women job and workplace was a leading factor over all CEAP classes (28.6%), the importance of symptoms and prevention increased with the CEAP class: from 26.3% in classes 2–4 to 51.8% in classes 5–6.

**Conclusions:** Although inversely correlated with outside temperature, the concentration of varicose vein surgery to the winter months seems to be coincidental. The patient's job situation represents overall the most important determinant of surgical planning. Symptoms and prevention are more important in certain subgroups than in others, that is among women and among patients with high CEAP classes.

### Endovascular Repair of a Complex Isolated Dissecting Aneurysm of the Superior Mesenteric Artery

Nikolaos Patelis, Panagiotis Doukas, Ilias Dodos, Taxiarchis Karampelas, Ilias Kanellopoulos, Konstantina Kyriakopoulou and Theodosios Bisdas

**Introduction:** Isolated dissection of the superior mesenteric artery (SMA) is rare and remains the most common reason

for aneurysmal degeneration of the vessel. The treatment is challenging and not standardised. The purpose of this report is to demonstrate that coiling of the false lumen is a good alternative for dissecting SMA aneurysms.

**Report:** A 50 year old male presented with a 3.3 cm dissecting aneurysm of the SMA and epigastric pain of moderate severity. More than 50% of the ileal arteries arose from the collapsed true lumen. Via transfemoral access the true lumen was catheterised. An open cell balloon expandable stent was deployed at the proximal and a closed cell self expandable stent at the distal end of the dissection flap. Through the cells of the first stent a microcatheter was advanced into the false lumen and 33 coils were deployed into the aneurysm sac. A stent graft was deployed within the first stent leading to the total exclusion of the aneurysm. Follow up at three months was uneventful and the patency was assessed by contrast enhanced ultrasound.

**Discussion:** Coiling of the false aneurysm is a good alternative for dissecting SMA aneurysms, where no other open surgical or endovascular options are applicable.

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### Massive Aortic Endograft Infection: Graft Expulsion Through the Skin

Javier Rodríguez-Padilla and Marta Ramírez Ortega

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### Endovascular Treatment of Repeated Multilevel Spontaneous Aortic Ruptures: A Case Report

Adriano C. Guimarães, Thaís D.B. Pessoa, Rodrigo G. de Oliveira, Felipe C. Neto, Ricardo H. Moreira and Walter B. de Araujo

**Introduction:** Approximately 40 cases of spontaneous rupture of the aorta have been described in the literature. Diagnosis can be challenging, and a high index of clinical suspicion enabling prompt treatment can be lifesaving.

**Report:** This report presents the case of a 73 year old man who had three multilevel ruptures of the aorta at different times, all treated endovascularly. The patient had a good post-operative course, with no complaints during regular follow up.

**Discussion:** Clinical presentation was non-specific because the ruptures were contained, but spontaneous rupture of the aorta can manifest with a catastrophic presentation and hypovolaemic shock, requiring immediate treatment. The

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endovascular technique used was safe and resolved the patient's symptoms.

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#### Non-Anastomotic Complete ePTFE Axillobifemoral Bypass Disruption and Thrombosis Following Shoulder Dislocation

Benoît Lucereau, Arielle Bellissard, Frédéric Beck, Delphine Dion, Frédéric Heim, Nabil Chakfe and Anne Lejay

Complete disruption of an expanded polytetrafluoroethylene (ePTFE) vascular graft is rare. This is a report of a case of a 70 year old man presenting with left shoulder dislocation, which was reduced immediately. Two weeks later, the patient presented with Rutherford 2b bilateral lower limb ischaemia related to the thrombosis of an ePTFE axillobifemoral bypass. The graft was implanted five years earlier for treatment of an aorto-enteric fistula secondary to an infected aortobifemoral bypass. A non-anastomotic pseudoaneurysm associated with complete disruption of the ePTFE graft was found. Systematic analysis of the explant showed that the rupture occurred at the level of a ringed external support and that ongoing tears also occurred on the posterior wall of the graft at the level of this external support. In conclusion, complete analysis of failure mechanisms even from an isolated report is mandatory.

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#### Delayed Presentation of Metastatic Renal Cell Carcinoma as an Arteriovenous Malformation Mimicking Vascular Tumour of the Forearm

Gillian Caunter, Mohamad Syafeeq Faez Md Noh, Lenny Suryani Safri, Krishna Kumar, Mohamad Azim Md Idris, Hanafiah Harunarashid and Azyani Yahaya

**Introduction:** The development of metastatic renal cell carcinoma (RCC) many years after a nephrectomy is not common but has been reported. A metastasis appearing as a hypervascular tumour, mimicking an arteriovenous malformation (AVM), is a highly unusual phenomenon, with a biopsy required for diagnostic confirmation. Surgery is an option for a solitary metastatic lesion amenable to complete excision, with proven survival benefits. However, widespread metastatic disease carries a very poor prognosis, and is best treated with systemic agents such as anti-angiogenic drugs or tyrosine kinase inhibitors.

**Report:** A 58 year old man developed an AVM mimicking a vascular tumour within his left brachioradialis muscle 10 years after a nephrectomy for RCC. Ultrasound and magnetic resonance imaging did not reveal any suspicious features of the vascular lesion.

The lesion was successfully removed surgically, and was later proven histopathologically to be metastatic RCC. Further imaging showed widespread metastatic disease, and the patient survived only 15 months after receiving tyrosine kinase inhibitor therapy.

**Discussion:** This case report aims to highlight a few important points: RCC metastases may be hypervascular, mimicking an AVM. A long disease free interval does not

necessarily exclude recurrence or metastasis, as in this case, therefore long term surveillance is recommended. A high index of suspicion must be maintained to avoid delay in treatment, and biopsy of any suspicious lesion for histological examination is mandatory, albeit after many years of cancer remission. Whole body imaging with computed tomography or positron emission tomography computed tomography may detect clinically occult recurrence or metastases, and is important to guide further treatment.

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#### Posterior Circumflex Humeral Artery Aneurysm: Case Report and Systematic Literature Review

Salomé Kuntz, Anne Lejay, Vincent Meteyer, Charline Delay, Emilie Bonnin, Yannick Georg, Fabien Thaveau and Nabil Chakfé

Posterior circumflex humeral artery (PCHA) aneurysm is a rare condition. It mostly affects young professional sports player and might be career threatening. This is the report of the case of a 28 year old volleyball player presenting with symptoms of right digital ischaemia caused by a PCHA aneurysm. Surgical treatment by resection of the aneurysm without revascularisation was performed. The post-operative course was uneventful and the patient returned to professional competition one month after surgery. A literature review is also presented in an attempt to provide recommendations for PCHA aneurysm diagnosis and management.

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#### Post-Traumatic Dorsalis Pedis Pseudo-aneurysm Caused by Crush Injury

Bilgehan Erkut and Azman Ates

**Introduction:** This is the report of an unusual case of a dorsalis pedis artery pseudo-aneurysm resulting from trauma in a 61 year old farmer.

**Report:** One year previously, the patient's right foot had been crushed under a tractor wheel. The patient complained of pain and pulsatile swelling on his right foot which he noticed two months before presentation. Radiological examinations revealed a pseudo-aneurysm of the dorsalis pedis artery. Resection of the aneurysm was completed without complications. Pathological findings confirmed an aneurysm of traumatic rather than atherosclerotic aetiology.

**Discussion:** The patient remains under follow up without ischaemia. False aneurysms should be treated by surgical or endovascular intervention when they are detected.

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#### Endovascular Management of Isolated Spontaneous Superior Mesenteric Artery Dissecting Aneurysm

Mina Cheng, Kin-yan Lee and Philip Chong-hei Kwok

**Objectives:** The aim is to present the technique of successful management of a superior mesenteric artery (SMA) dissecting aneurysm by a purely endovascular approach.

**Methods:** This was a single centre case report.

**Results:** Isolated spontaneous SMA dissecting aneurysm is rare, and previously was usually treated by an open or hybrid approach. This is a single centre case report of the successful management of a SMA dissecting aneurysm by a purely endovascular approach.

**Conclusions:** A pure endovascular approach is feasible and effective in the management of isolated SMA dissecting aneurysm, which is a rare but life threatening condition.

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#### Acute Type B Aortic Dissection One Month After Fenestrated EVAR Procedure

Elias Jose Rodriguez Czaplicki, Cristina Martinez Mira, Dina Magaly Anaya Sifuentes and Jorge Aisa Aldama

**Introduction:** Acute aortic dissection after endovascular repair of an aortic aneurysm is a rare but serious condition, with potential complications that can result in the death of the patient.

**Report:** This is the case of a patient diagnosed with a type IV thoraco-abdominal aneurysm with involvement of both iliac arteries who underwent endovascular repair with a four fenestration device and a left iliac branch. One month after the procedure, the patient presented with a type B acute aortic dissection that extended from the left subclavian artery to the proximal stent of the fenestrated graft. This dissection was treated by thoracic endovascular aortic repair, and after a problematic post-operative period, the patient was discharged after 30 days.

**Discussion:** Occurrence of an acute aortic dissection after endovascular repair of an aortic aneurysm has rarely been reported in the literature. Development of these dissections has been related to factors such as excessive oversizing, use of devices with active fixation systems, or injuries during the

procedure, although it is believed that the late onset would indicate that it was a de novo dissection. The presence of an aortic dissection can lead to the collapse and occlusion of the previous endograft and even to aortic rupture, and mortality in reported cases reaches 30%. The authors suggest that endovascular treatment should be considered in these patients.

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#### False Lumen Embolization with the Candy Plug Technique for Consumptive Coagulopathy after Aortic Repair for Chronic Dissection

Shota Hasegawa, Yoshikatsu Nomura and Hirohisa Murakami

**Introduction:** Chronic aortic dissection rarely causes consumptive coagulopathy due to disseminated intravascular coagulation (DIC).

**Report:** A 69 year old man who had previously undergone total arch replacement with the frozen elephant trunk procedure for chronic aortic dissection was transferred to our hospital because of sudden back pain. He had a bleeding from the right subscapular artery due to consumptive DIC caused by retrograde blood flow into a residual false lumen (FL). Percutaneous transcatheter embolisation was successfully performed, but DIC findings persisted. Thoracic endovascular aortic repair and FL embolisation with the candy plug technique were performed. Subsequently, DIC improved and FL thrombosis was safely accomplished.

**Discussion:** In this case, FL thrombosis was safely accomplished with the candy plug technique. This strategy expands options in patients with high risk for open repair.