

gained above 160 m in MWD, while the other agents only improved MWD about 50 m.

Conclusion: Several drugs have shown to improve MWD, but with limited benefits. Statins seem to be the most efficient drug at the moment.

The Surgical Management of 73 Vascular Malformations and Preoperative Predictive Factors of Major Haemorrhage – A Single Centre Experience

Maftei N., Howard A., Brown L.C., Gunning M.P., Standfield N.J. *Eur J Vasc Endovasc Surg* 2009;38:488-97.

Objectives: In our series of patients with congenital vascular malformations (CVMs) we investigate the preoperative factors for predicting major haemorrhage at surgery and propose an algorithm for their surgical management.

Design: This is a partly prospective case series of patients with severe symptoms/complications due to CVMs.

Materials and methods: Data were collected on 73 consecutive procedures in 41 patients with CVMs from 1992 to 2006 at a large university hospital and the association of following factors with blood loss during the procedure were investigated: type of procedure, possibility of proximal tourniquet use, lesion flow characteristics, previous history of major haemorrhage with CVM surgery, platelet counts and length of hospital stay.

Results: Significantly higher blood loss was associated with debulking surgery ($p = 0.006$) and with previous history of major haemorrhage during CVM surgery, ($p = 0.041$). Blood loss was higher in lesions where proximal tourniquet application was not possible ($p = 0.093$). High-flow lesions were not strongly associated with major blood loss ($p = 0.288$). Major blood loss (>2 l) occurred in 16 (20.8%) procedures performed on 11 (26.2%) patients, but this did not prolong hospital stay.

Conclusion: Surgery can potentially improve morbidity/mortality in patients with life/limb-threatening complications or severe symptoms due to CVMs, providing they are managed in multidisciplinary specialised centres.

Visceral Venous Aneurysms: Clinical Presentation, Natural History and Their Management: A Systematic Review

Sfyroeras G.S., Antoniou G.A., Drakou A.A., Karathanos C., Giannoukas A.D. *Eur J Vasc Endovasc Surg* 2009;38:498-505.

Aim: Aneurysms of the visceral veins are considered rare clinical entities. The aim is to assess their clinical presentation, natural history and management.

Methods: An electronic search of the pertinent English and French literature was undertaken. All studies reporting on aneurysms of visceral veins were considered. Cases describing patients with arterial-venous fistulae and extrahepatic or intra-hepatic portosystemic venous shunts were excluded.

Results: Ninety-three reports were identified, including 176 patients with 198 visceral venous aneurysms. Patients' age ranges from 0 to 87 years, and there is no apparent male/female preponderance. The commonest location of visceral venous aneurysms is the portal venous system (87 of 93 reports, 170 of 176 patients, 191 of 198 aneurysms). Aneurysms of the renal veins and inferior mesenteric vein are also described. Portal system venous aneurysms were present with abdominal pain in 44.7% of the patients, gastrointestinal bleeding in 7.3%, and are asymptomatic in 38.2%. Portal hypertension is reported in 30.8% and liver cirrhosis in 28.3%. Thrombosis occurred in 13.6% and rupture in 2.2% of the patients. Adjacent organ compression is reported in 2.2% (organs compressed: common bile duct, duodenum, inferior vena cava). The management ranged from watchful waiting to intervention. In 94% of the cases, aneurysm diameter remained stable and no complications occurred during follow-up. In most of the cases, indications for operation were symptoms and complications. Six cases of renal vein aneurysm are reported; three of them were asymptomatic. Three of these patients were treated surgically.

Conclusion: The most frequent location of visceral venous aneurysms is the portal venous system. They are often associated with cirrhosis and portal hypertension. They may be asymptomatic or present with abdominal pain and other symptoms. Watchful waiting is an appropriate treatment, except when complications occur. Most common complications are aneurysm thrombosis and rupture. Other visceral venous aneurysms are extremely rare.