Surgical Management of High and Low-flow Vascular Malformation

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ABSTRACT

Aim: to study Safety and Efficacy of Surgery for High and Low-Flow Vascular Malformation(VM)

Methods: 33 patients (In 28 Surgery was the solo management and In 5 with multidisciplinary therapy. Either CT angio or MRI was used in all patients.

Results: 5 combined multidisciplenary therapy in form of selective embolization , surgery and ethanol sclerotherapy with mean age : 3 lesions were found in head and neck ,larynx and 2 lesion was found in gluteal region and the lower limb .
28 patients of surgical group: 23 patients (82.14%) presented by swelling and disfigurements while 4 patients (14.28%) were suffering from bleeding. One patient (3.57%) was suffering from DIC (presented with massive bleeding ,anaemia and upper limb nerve paralysis from compression and Brain concussion after trauma and had high arm amputation as life-saving .The location of the lesion: 8 lesions in head and neck (28.57%),10 lesions in the upper limb (35.72%)5 lesions in the lower limb (17.86%) , 4 lesions in the trunk (14.28%),and one lesions in the genital organs (3.57%).
11cases presented with high flow Arterio-Venous Malformation(AVM). 4 cases presented with truncular cirsoid aneyrisms treated by "En bloc" resection and the other 7 cases were suffering from extratruncular AVM and treated by resection of abnormal vessels which communicate a main artery with a main vein. 15 cases presented with low flow extratruncular VM All of them treated by devascularization.
Outcome: Complete obliteration of the AVM nidus was (78.57%) patients. Near total obliteration of the nidus for follow-up of the remaining perinidal angiogenesis was achieved in (17.86%) . Complications occurred in 15% in form of bleeding, drug reaction ,infection and wound disruption
The follow up : 5 to 24 months no recurrence cases were recorded , also no further attacks of bleeding.

Conclusion: (41%) of patients with high or low flow VM were candidates for surgery of those patients: (78%) were able to fully recover after a total excision. Multidisciplinary approach with full integration of open surgical and endovascular therapy used only in 6% .. Early intervention is important to avoid hemorrhage , thrombosis or amputation.

PURPOSE

to study Safety and Efficacy of Surgery for High and Low-Flow Vascular Malformation (VM)

METHODS

33 patients (28 had Surgery, 5 had multidisciplinary in the form of selective embolization , surgery and ethanol sclerotherapy)

	Surgery	Multidisciplinary
Mean Age	28 years	19 years
Gender	12 males and 16 females	3 males & 2 females
Site	8 in head and neck ,10 in the upper limb ,5 in the lower limb ,4 in the trunk ,and 1 in the genital organs	3 in head and neck ,larynx and 2 in gluteal region and the lower limb

In the surgery group, 23 patients presented with disfiguring swelling, 4 with bleeding and 1 with DIC, massive bleeding ,anaemia, upper limb nerve paralysis from compression and brain concussion after trauma and had high arm amputation as life-saving procedure.

4 patients presented with truncular cirsoid aneurysms treated by "En bloc" resection, 7 had extratruncular AVM treated by resection and 15 had low flow extratruncular VM treated by devascularization techniques

RESULTS

RESULTS

Complete obliteration of the AVM nidus (cured AVM) was achieved in 22 (78.57%) patients.

Near total obliteration of the nidus was achieved in 5 (17.86%) patients.

Complications occurred in 15% in the form of bleeding, drug reaction, infection and wound disruption.

No recurrence,or bleeding in the follow up • period (ranged from 5 to 24 months).

CONCLUSION

Early intervention is important to avoid hemorrhage , thrombosis or amputation.

Surgery is feasible with few complications, no recurrence or mortality.

Not all vascular surgeons have experience in Endovascular interventions or the infrastructure for these cases.

Surgery is temporary line but life saving on cost of recurrence

DISCLOSURES

None