

The Effect of Pre-operative Embolization on the Resection of Large Solid Cerebellar Hemangioblastoma Ahmed Farhoud MD; Tamer Hassan; Ahmed Soltan Neurosurgery Department, Alexandria University Egypt



## Introduction

Solid cerebellar hemangioblastomas are highly vascular tumors that may cause severe hemorrhage during surgical resection.

## Methods

we reviewed the records of 11 patients operated for the resection of solid cerebellar hemangioblastoma at the neurosurgery Department, Alexandria University, Egypt,in the period between 2008 and 2015. All cases had pre -operative tumor embolization prior to surgery.

## Results

There were 7 men and 4 women, with a mean age of 38 years. Three patients had confirmed Von Hippel–Lindau disease. The average tumor size was 40.7?±?8.7?mm in its maximal diameter. Three patients in this series experienced failed surgery elsewhere due to massive intraoperative bleeding before being referred to our facility. The most common presenting symptoms were headache and ataxia which were present in all cases.

Total endovascular occlusion was possible in six patients, near total occlusion was carried out in three patients, and incomplete occlusion in 2 cases. Nine patients (82%) underwent gross total resection and in 2 cases only subtotal resection was possible.Blood loss during surgery was minimal and controllable. Eight patients (73%)experienced post-operative improvement of their symptoms and the remaining cases maintained their pre-treatment status.



pre-op imaging of a 46 Y old male patient presenting with ataxia and dysarthria. Patient had a ventriculoperitoneal shunt and a failed surgical attempt at another institute



picture to the left shows the condition at the end of onyx injection session which was done one week before surgery and those on the right show post op. MRI after total resection of the tumor

Midline hemangioblastoma



Pre and post operative MRI of a 48 Y female patient treated with the same strategy

### Rt cerebellar hemispherical hemangioblastoma



pre-op CTA and intervention angiography of a 40 Y old male with 2 previous surgical trials



the left picture was taken at the end of embolization session the the right side shows cystic degenerative changes in MRI performed 3 days after embolization

# Conclusions

Preoperative embolization improves safety and efficacy of the surgical excision of these tightly located, highly

vascular tumors.