

Vein of Galen Aneurysmal Malformation

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Short Commentary

Vein of Galen aneurysmal malformation is because of the persistence of the proximal aspect of Median prosencephalic vein of Markowski that normally drains the primitive choroidal vessels [1,2]. It normally obliterates within 11 week of gestation.

Classification	Distinct entity
Type 1	Feeders from pericallosal and the P3 branches
Type 2	Feeders from the thalamoperforators and the P1 and P2 branches
Type 3	Type 1 and type 2
Type 4A	Associated with thalamic AVM
4B	Associated with mesencephalic AVM
4C	Associated with mesodiencephalic and the cisternal AVM

Table 1: Yasargil classification.

Parameters	Scores	
	0	1
Arterial feeders		Feeders from P1,P2,thalamoperforators,choroidal or basilar
Clinical symptoms	No heart failure	Heart failure
Age	>5 months	<5 months

Table 2: Mortazavi scoring system.

There is presence of falcine sinus leading to the characteristic accessory torcula appearance in the cerebral venous imaging studies. This differentiates it from the vein of Galen aneurysmal dilatation wherein there is presence of a normal draining straight sinus. There may be associated other venous anomalies like the stenosed, fenestrated, duplicated or absent straight sinus owing to the absence of cavernous sinus drainage prior to six months of age [3].

Clinically patients' present either with features of cardiac failure due to high shunt in cases of choroidal variant or symptoms of raised intracranial pressure due to hydrocephalus in mural variants [4]. There has been various classification used but most commonly applied is the Yasargil classification [5] (Table 1).

Bicetre scoring [6] has been adopted to evaluate and assess the overall general status of the patients with VOGM.

Currently this condition can be managed either via open surgical [5], embolisation [7] or via the gamma knife modalities [8]. Most opt for the embolisation either via the arterial or the transvenous route. Recently Mortazavi et al have described a new scoring system so as to formulate a correct management strategy for this entity [3] (Tables 2 and 3).

Points	Treatment
0-1	Endovascular in 1 stage (no urgency)
2	Endovascular in stages (urgency)
3	Consider endovascular or palliation in stages

Table 3: Proposed treatment algorithm based on the scoring system.

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