

Ruptured Aneurysmal Neurocysticercosis: Case Report and Review of the Literature

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Introduction

Neurocysticercosis is a common CNS disease caused by the larva *Taenia solium*⁴. It usually occurs endemically in rural areas developing countries and its incidence is 0.1 to 4%,⁴.

Most patients are asymptomatic and when symptomatic they can present with seizures, headaches, and hydrocephalus⁴. Cerebrovascular disease is fairly uncommon and most of the times it can cause vasculitis involving both large and small vessels². Only a few cases of subarachnoid hemorrhage due to an inflammatory brain aneurysm have been reported^{1,2,3}.

Methods

Case Report. 80-year-old Spanish-speaking man presented with significant headaches and confusion. CTA demonstrated subarachnoid hemorrhage and a L 2mm MCA aneurysm with an adjacent cystic lesion.

Operation. Left frontotemporal craniotomy with clipping left middle cerebral artery aneurysm and evacuation of neurocysticercosis cyst

Results

Discussion.

All neurocysticercosis inflammatory aneurysm cases reported were found to be adjacent to a cysticercus cyst^{1,2,3}. This makes it suspicious for an inflammatory origin.

It has been reported that direct clipping of a neurocysticercosis inflammatory aneurysm is more difficult mainly due to inflammatory changes in the vessel walls which make it more friable and so increases the possibility of intraoperative rupture¹. Four cases were reported and only one has been clipped while the rest were trapped, wrapped or proximal artery clipping^{1,2,3}

In this case we did not experience any difficulty clipping the aneurysm.

At this moment we do not know if there is a role for antiparasitic therapy in the presence of a cysticercosis inflammatory brain aneurysm. For this reason in the presence of subarachnoid hemorrhage we recommend surgical management of the aneurysm with or without albendazole treatment.

Conclusions

An inflammatory aneurysm should be suspected in the case of subarachnoid hemorrhage adjacent to a neurocysticercosis lesion. Surgeon should be aware that it might be more friable and chances of intraoperative rupture are higher. The role for medical treatment is not yet determined.

Learning Objectives

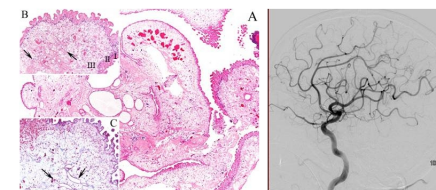
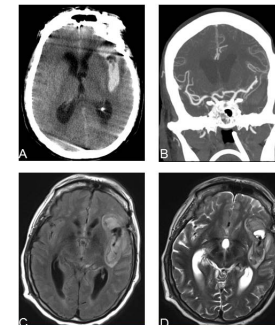
Consider inflammatory aneurysm in the case of subarachnoid hemorrhage with adjacent neurocysticercosis lesion.

Be prepared for possible friable lesion, difficult to clip and higher chances of intraoperative rupture.

Further investigation is needed regarding the role of medical therapy

References

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4. Monteiro de Almeida S, Bleggi Torres LF. Neurocysticercosis—Retrospective Study of Autopsy Reports, a 17-Year Experience. *J Community Health* DOI 10.1007/s10900-011-9389-z
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Reference, Year	Age/Sex	Symptoms	Aneurysm Location	Treatment	Adjuvant Treatment	Outcome
Zee et al., 1980	33/M	HA, NV, AMS	Right distal MCA	Clipping of the proximal artery	NA	NA
Soto-Hernandez et al., 1996	32/M	HA, NV, AMS	Right AICA	Wrapping	Albendazole and Steroids	Recovered
Huang et al., 2000	32/M	NA	Left distal MCA	Clipping	Albendazole	Recovered
Kim et al., 2005	69/M	NA	Right distal MCA	Trapping	Albendazole	Recovered
Present Case, 2012	80/M	HA, AMS	Left distal MCA	Clipping	Albendazole	Recovered