Tumor-like neurocysticercosis
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Objective
Neurocysticercosis is considered the most common cause of epilepsy worldwide. Neurocysticercosis is endemic in South America, East Europe, Africa and Asia. In these regions, autopsy incidence is approximately 4%. It is the most common parasitoids of the central nervous system (CNS). Epilepsy is the most frequent clinical feature: it is seen in 50-70% of cases. Other symptoms include signs of intracranial hypertension, cauda equine syndrome and neurological deficiency. Despite the development of anticysticercal drugs (praziquantel and albendazole), their efficacy is more marked in cases with parenchymal active cysts and they do not prevent complications such as hydrocephalus. Thus, many patients with neurocysticercosis require surgical intervention, generally of palliative nature, but that may occasionally produce a cure.

Methods and materials:
47 patients with radiological/immunological test positive findings for neurocysticercosis were studied between 2010 to 2019. Surgical treatment was performed to control increased ICP in 10 patients; the clinical outcome of 10 patients with cerebral cysticercosis who underwent surgical treatment was analyzed. Some patients had more than one surgical procedure, totaling 18 interventions. Increased intracranial pressure (ICP) was caused by hydrocephalus in 80%, and by intracranial mass lesion (tumoral form) in 20%. Based on the pathophysiological mechanisms of intracranial hypertension identified through conventional CT-scan and MRI, different surgical approaches were indicated.

Results:
Patients with tumoral form were submitted to direct approach and cyst removal and generally, they had benefits from this procedure. Direct removal of ventricular by endoscopy, combined endoscopy with microsurgical approach to the IV ventricle and/or ventricle peritoneal shunting (VPS) was performed in patients with hydrocephalus. Removal of third ventricular cysts mimicking a third ventricular colloid cyst by endoscopy in patients who had no ependimitis/arachnoiditis generally allowed a good outcome. Patients with adherent cysts and inflammatory process needed a VPS posteriorly. Two patients were submitted to VPS as the first procedure, one of them required three VPS revision surgical procedures.

Results: (cont.)
The VPS was effective to control increased ICP, despite many complications observed mainly during the next postoperative years. Three patients underwent to microsurgical removal of cyst, need VPS after 1 to 2 years, and two of them required a second VPS. After this period, the surviving patients generally had a better outcome.

Conclusion:
Based on the experience acquired with the management of these patients we present our recent policy for the treatment of patients with neurocysticercosis.

No consensus exists on the proper treatment protocols for tumor like NCC. We present a small serie of cases of neurocysticercosis mimicking tumoral lesions in an endemic region treated successfully with both open surgical and medical therapy.

References: