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EC NEUROLOGY
Mini Case Study

Multiple Cerebral Hydatidosis: About a Single-Stage Operation

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Abstract

Introduction: Multiple cerebral hydatidosis is exceptional even in endemic countries. It would most often complicate a cardiac localization. It is a parasitic condition caused by Echinococcus granulosis. The clinical picture, as in any intracranial process, is made of an intracranial hypertension syndrome and signs of focusing according to the localization. Computed tomography allows positive diagnosis. The surgical treatment remains difficult in the multiple form because of the different localizations and the important risk of the recurrences.

Clinical Case: A 14-year-old boy, with no pathological history living in rural areas, admitted to emergencies in a clinical presentation of intracranial hypertension with no sign of neurological localization.

The emergency cerebral CT showed a multiple cerebral hydatidosis with 7 hydatid cyst sus and under tentorial, including two frontal, one temporal, three left parieto-occipital, and finally a cerebellar left. The patient was operated on urgently in a single operative time in ventral decubitus position, first a large left fronto-parieto-occipital flap allowing the removal of all supratentorial cysts by hydropulsion (Arana Iniguez technique); then an occipital craniectomy was re-done for removal of the cyst from the posterior fossa.

A cerebral CT scan confirms the total removal of the eight cysts. The clinical course was favorable with complete disappearance of the intracranial hypertension syndrome. The child was discharged on the 6th postoperative day and put on Albendazole at the dose of 10 mg/kg/day,

Conclusion: Hydatidosis is rare (1 to 2% of cases), slow-onset and mainly manifested by intracranial hypertension. In spite of surgical treatment, a risk of recurrence remains possible that may be life-threatening. remains the total excision Primary prevention is mandatory especially in rural areas.

Keywords: *Hydatidosis; Tentory Suspended; Cerebellum; Recurrence*

Introduction

Multiple cerebral hydatidosis is exceptional even in endemic countries. It would most often complicate a cardiac location. It is a parasitic condition caused by *Echinococcus granulosus*. The clinical picture, as in any intracranial process, is made up of intracranial hypertension syndrome and signs of focusing depending on the location. Computed tomography allows a positive diagnosis. Surgical treatment remains difficult in the multiple form because of the different locations and the high risk of recurrence.

Clinical Case

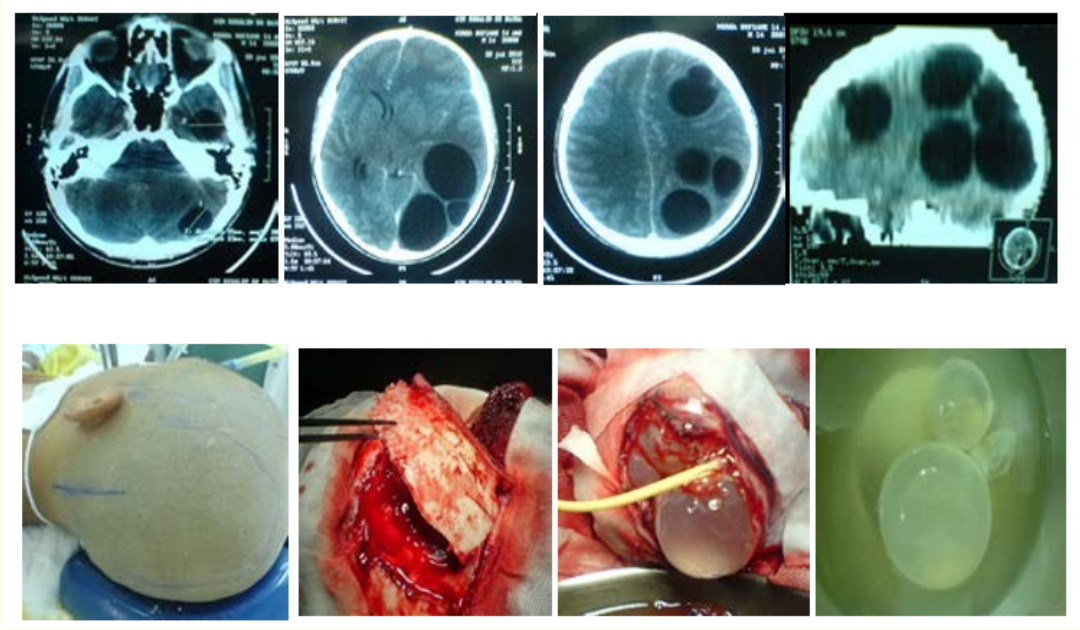
A 14-year-old boy, with no pathological history living in a rural area with the notion of contact with dogs, he was admitted to the emergency room after generalized convulsive seizures following headaches and vomiting.

The clinical examination found a conscious child, without neurological deficit.

The cerebral computed tomography performed showed 7 cystic formons, including two in the left frontal, one in the temporal, three in the left parieto-occipital and finally one in the posterior cerebral fossa.

The patient was operated on urgently, with a total evacuation of all the cysts by hydropulsion (Arana Iniguez technique), we first approach the cysts in addition to tentorial by a left frontotemporal approach then the left parieto-occipital cysts and finally that of the posterior cerebral fossa.

The patient was discharged from the hospital, after complete disappearance of the intracranial hypertension syndrome, after 6 days of hospitalization and on Albendazole at a dose of 10 mg/kg/day, the patient left the service in good condition general and without neurological deficit with a CT scan showing the total ablation of the eight cysts.



Discussion

Hydatidosis is localized in 1 to 2% of cases in the brain. This rarity is explained by the existence of two hepatic and pulmonary filters which prevent the arrival of the parasite in the brain. The liver and lungs are then the most frequent locations (respectively 60% and 30%).

It is found more frequently in children and young adults (50 to 70%).

The supra tentorial localization would be more frequent and a few rare cases of intraventricular localization have been described [1]. Intracranial hypertension is almost constant, it sets in gradually over several weeks or even months, due to the slow growth of the cyst [2]. Visual disturbances are sometimes difficult to demonstrate in young children, but unilateral or bilateral papillary edema is often found during ophthalmologic examination [3]. The cases of revelation by a coma have been described. Brain CT is the examination of choice for making the diagnosis, the biological assessment is nonspecific and the hydatid serology is often negative. A chest X-ray and abdominal ultrasound are necessary to look for other associated locations (in 10% of cases). Treatment is surgical and the ideal is to remove these

intact cysts. The technique of evacuation of the cyst by hydropulsion is the most used (described by Arana Iniguez). Albendazole-based medical treatment is indicated in the event of rupture, or in the event of multiple locations [1].

Conclusion

Cerebral hydatid cyst is a rare condition. Unfortunately, there are still endemic areas and mainly affects children. The clinical picture is dominated by intracranial hypertension syndrome. Computed tomography is the basic examination for a positive diagnosis. The search for other locations must be systematic. Surgery is the ideal treatment, it is often difficult in the form of multiple cerebral localization which can darken the good prognosis of this affection.

Bibliography

1. Turgut M. "Intracranial hydatidosis in Turquey: its clinical, surgical management, and outcome. A review of 276 cases". *Neurosurgical Review* 24 (2001): 200-208.

2. Jovay H. "Kyste hydatique du cerveau à propos de 13 cas (Thèse)". Monastir: faculté de médecine de Monastir Tunisie (1998).

3. Ben Becher S., *et al*. "Les kystes hydatiques cérébraux chez l'enfant". *Archives de Pédiatrie* 4 (1997): 1107-1110.

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