ECRONICON OPEN ACCESS

EC CLINICAL AND MEDICAL CASE REPORTS

Case Report

A Cerebral Hydatid Cyst Revealed by a Macrocrania

El Aoufir Omar*, Abid Zakaria, Lanjeri Safae, Allali Nazik, Chat Latifa and El Haddad Siham

Pediatric radiology department, University Hospital Center Ibn Sina, Mohamed V University, Rabat, Morocco

***Corresponding Author:** El Aoufir Omar, Pediatric radiology department, University Hospital Center Ibn Sina, Mohamed V University, Rabat, Morocco.

Received: November 27, 2020; **Published:** December 31, 2020

Abstract

The authors report the case of a child with a large hydatid cerebral cyst responsible for a progressive macro-cranis. Hydatidosis is common in endemic countries. The cerebral localization is uncommon and its evolution in children is particular.

Keywords: *Macrocrania; Hydatid Cyst; CT Scan*

Case Report

A 3 year old child living in a rural area was consulting for a progressive increase in head circumference, that had been evolving for six months.Clinical examination revealed a macrocrania with a head circumference of 75 cm with no associated disorder of consciousness or deficit (Figure 1). A cerebral CT scan was performed, showing a large left frontal cyst, pushing back the cerebral parenchyma and peripheral vessels (Figure 2). The patient benefited from a cystectomy with a good evolution thereafter.

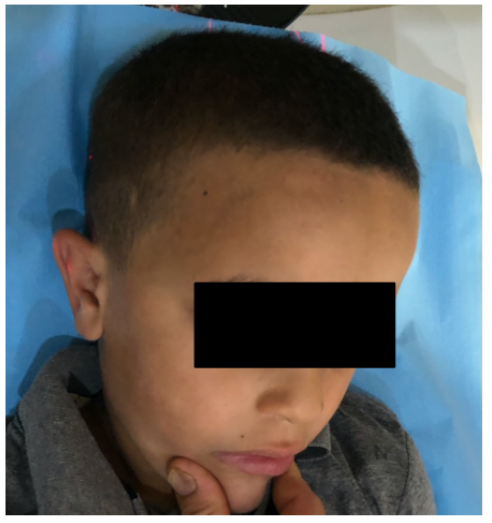

Figure 1: *Coronal Computed Tomography Scan Of The Abdomen Demonstrating A Thickened And Dilated Appendix (Arrow).*

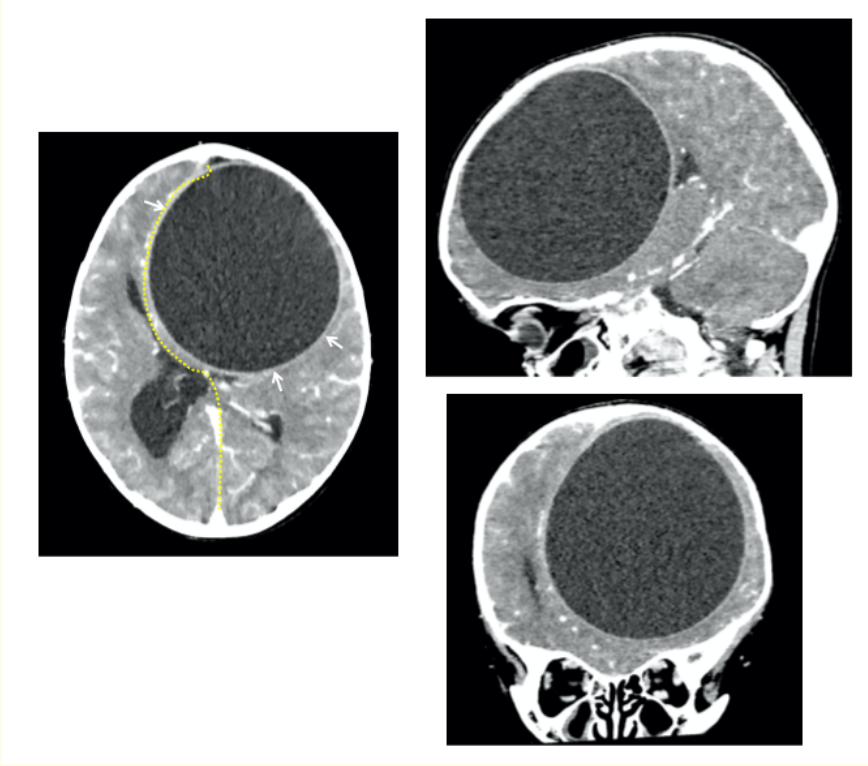

Figure 2: *Cerebral CT Scan with Contrast Injection, in Axial (a), Sagittal (b) and Coronal (c) Sections, Showing an Intracerebral Cyst, Left Frontal Seat, Rounded, well Limited, of Homogeneous Fluid Density Similar to LCS. Note the Deviation of the Midline to the Right (Dotted Yellow Line), Compression of the Homolateral Ventricle with Dilatation of the Contralateral Ventricle. It Represses the Cerebral Parenchyma over the Entire Circumference () without Associated Edema. The Cortical Arteries Mould the cyst, in Periphery (>).*

Discussion

Hydatidosis or hydatid cyst (KH) is a widespread epidemic disease in North Africa and South America. The disease is caused by the larval form of Ecchinococcus granulosis. The cerebral localization is very rare.

From a pathophysiological point of view, the ingestion of the eggs of the parasite by humans, an accidental host, leads to the diffusion of the germ from the intestinal mucosa to the liver, lungs and brain, via the systemic circulation [1]. The supra-tentorial localization, most often frontal or parietal, is explained by the importance of the blood flow and the large calibre of the sylvian artery irrigating this region of the brain. The left seat is favoured by the direct birth of the left common carotid artery at the level of the aorta facilitating the migration of the hydatid emboli [2]. In our patient, the cyst was left-sided frontal.

The KHC preferentially affects children and young adults [3]. Infantile involvement is favoured by the persistence of the ductus arteriosus connecting the aorta and the pulmonary artery facilitating hydatid migration [2]. Clinic is variable, the cyst may be revealed by an intracranial hypertension syndrome (ICHS) or remain latent despite its large size because it does not cause oedema [4]. The progressive and slow evolution, as well as the elasticity of the skull in children, means that the KHC can remain asymptomatic for a long time.

The CT scan shows a cyst, usually single, spherical or oblong in shape, large, thin-walled and regular as a "compass plot", with a fluid density close to the density of cerebrospinal fluid, not rising after injection. Peri-lesional edema is absent [5].

If the peri cyst is detached, the scanner can visualize a floating membrane inside the cyst. The appearance of contrast and peri-cystic oedema are evidence of KHC cracking.

MRI offers better resolution due to the fluid content. The KHC appears as hyposignal T1 and diffusion, hypersignal T2 with peri-cysts as hypersignal T1 and hyposignal T2.

KHC can become complicated with subfalcorial involvement and worsen the prognosis, hence the need for prompt and effective treatment. The treatment of choice is neurosurgical, based on extraction of the cyst, taking care not to rupture the cyst to prevent hydatid dissemination, which is often fatal [6].

Conclusion

«Hydatidosis is a parasitosis that is still widespread in the Third World. The liver and the lung are the two organs most affected. Brain localization remains rare and the child's involvement is even rarer. Brain imaging is essential for diagnosis.»

Bibliography

1. Taha B. "Diagnosis and treatment of human hydatid disease". *Electronic Journal of General Medicine* 9.1 (2012): 15-20.
2. K Tlili-Graiess., *et al.* "Hydatidose cérébrale, aspects en imagerie". *American Journal of Neuroradiology* 33 (2006): 304-318.
3. Bütke Y., *et al.* "Cerebral hydatid disease: CT and MR imaging findings". *Swiss Medical Weekly* 134 (2004): 459-467.
4. Kızılca O., *et al.* "Hydatid disease located in the cerebellomedullary cistern". *Case Reports in Medicine* (2014): 271365.
5. Acha-Sánchez JL., *et al.* "Cerebral hydatid cyst: Clinical case and review of the literature". *Neurocirugia* 28.4 (2017): 207-210.
6. Arora S., *et al.* "Giant primary cerebral hydatid cyst: A rare cause of childhood seizure". *Journal of Pediatric Neurosciences* 9 (2014): 73-75.

Volume 4 Issue 1 January 2021