Case (566) Paediatric seizures at the emergency room: dont forget tb

infection

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CASE PRESENTATION

24-month-old child born in Equatorial Guinea, in Spain since 09/24/17 is referred to the emergency department after an episode of disconnection of the medium consisting of deviation of the look to the right and generalized hypotonia of approx 5 minutes of duration with spontaneous resolution and posterior vomiting. 10 minutes of postcritical period. Afebril. Cough and increased secretions nasopharyngeal, no respiratory distress. Normal stools and urine analysis. Hyporexia since he is in Spain. No other symptoms.

Phisical exploration: Pulmonary auscultation :good bilateral ventilation, no added noise. Cardiac auscultation: rhythmic tones. No murmurs are appreciated. Abdomen: soft and depressible, hepatosplenomegaly of 2cm. Painless. Hydro-air noises preserved. No signs of peritoneal irritation. Neurological: alert and reactive, irritable, good connection with the environment. Mild hypotonia. No neck stiffness, no meningeal signs.

Blood test:

leukocytosis (18600), thrombocytosis (5270000), pH: 7,3; pO2: 50; pCO2: 51; HCO3: 25,1; TCO2: 26,7; BEb: -1,6; BEecf: -1,3; SBC: 23,4; SO2: 80,6%. In the emergency department another episode of the same characteristics takes places. A cranial TC is required.

Image studies and findings

A cranial CT is performed before and after intravenous contrast administration. Basal study shows extensive hypodense areas with subcortical distribution. After CIV administration multiple nodular lesions are identified the larger ones with ring contrast enhacement and associate perilesional edema. They present supratentorial and infratentorial distribution, with localization intraaxial, probably in a cortico-subcortical junction. Normal size ventricular system. Centered interhemispheric line. Cisterns of the base without significant alterations. At this point infectious etiology is proposed and a chest x-ray is performed showing mediastinal widening (probable adenopathies), right alveolar infiltrate and pleural effusion very suggestive of tuberculous disease.

DISCUSSION

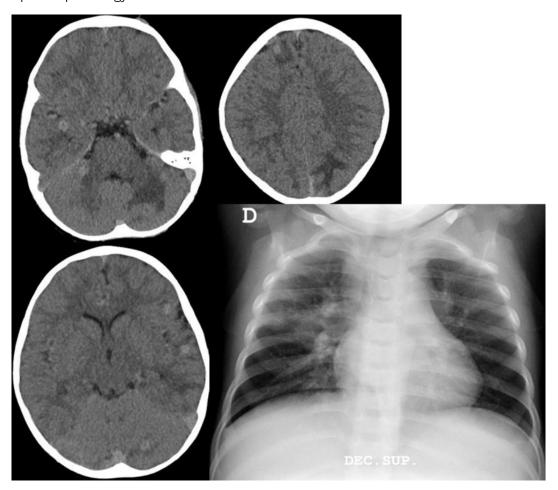
During admission to the pediatric service, the diagnosis of disseminated TB (central nervous system, pulmonary and splenic, demonstrated by ultrasound during admission) was confirmed.

Central nervious system TB is a medical emergency because treatment delay is strongly associated with death and empirical antituberculosis therapy should be started promptly

when suspected. Imaging is essential for the diagnosis of cerebral tuberculoma although radiological appearances do not confirm the diagnosis and microbiological and/or molecular diagnostic is required.

CONCLUSION

In the presence of an afebrile pediatric patient with a first seizure, a cranial CT should be performed to rule out infectious pathology that may require immediate treatment or neoplastic pathology.



BIBLIOGRAPHY

- Central nervious system tuberculosis in children: a review of 214 cases. Ahmet Yaramis, Fuat Gurkan, Murat Elevli. Pediatrics 102 (5), e49-e49, 1998.
- British infection society guidelines for the diagnosis and treatment of tuberculsis of the central nervous system in adults and children. Guy Thwaites, Martin Fisher, Cheryl Hemingway. Journal of infection 59 (3), 167-187, 2009.