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### **Idiopathic ischemic stroke in toddlers: a diagnostic possibility to be considered in rapid onset deficit syndromes**

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**Introduction:** Ischemic strokes are very rare entities in toddlers, but pose the risk of permanent disabilities. Most of the cases are associated with immunologic, inflammatory or infectious diseases, or with moyamoya syndrome. Idiopathic cases are even more uncommon. Differential diagnosis include neoplastic lesions and abscesses when a delimited lesion on brain magnetic resonance image (MRI) is found after an acute deficit syndrome. Aim of this work is to discuss differential diagnosis and management of ischemic stroke in toddlers.

**Methods:** Report of an illustrative case and literature review.

**Results:** A one year and six months old female patient was admitted presenting a sudden onset left motor deficit, characterized by proportionate grade II hemiparesis and central facial palsy. There was no history of fever, trauma or headache. She presented two generalized seizures on the second day and one focal seizure on the fourth day of evolution. A CT scan unveiled a hypodense well circumscribed lesion at the right nucleus-capsular periventricular region with no enhancement after endovenous contrast injection. The hypothesis of neoplastic lesion was made. However, MRI images showed the lesion hypodense in T1 and hyperdense in T2, with a restriction pattern in diffusion images, leading to the possibility of an ischemic stroke, although abscesses could also present this pattern on diffusion. The patient started to experience progressive improvement after one week. An angio-MRI was normal. Blood tests excluded immunologic, hematologic or infectious diseases. She was discharged from hospital after two weeks presenting only a mild hemiparesis, still improving under physical therapy.

**Conclusions:** Although rare, ischemic stroke is to be considered as a possibility in cases of acute motor deficit in toddlers, even if no associated predisposing diseases are present. MRI with diffusion images is a key point to help establishing diagnosis and avoiding an inutile and virtually harming biopsy.