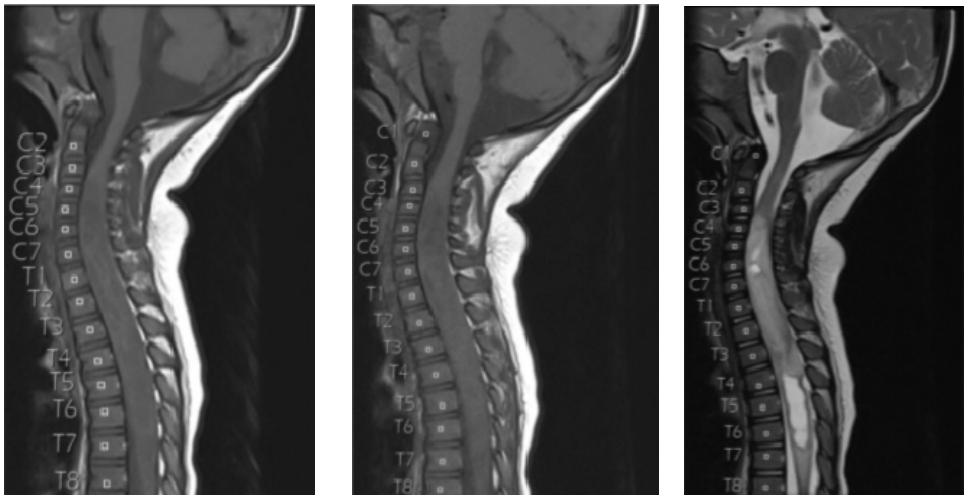
GRADE III INTRAMEDULLARY ASTROCYTOMA IN A 21-MONTH-OLD PATIENT: CASE REPORT

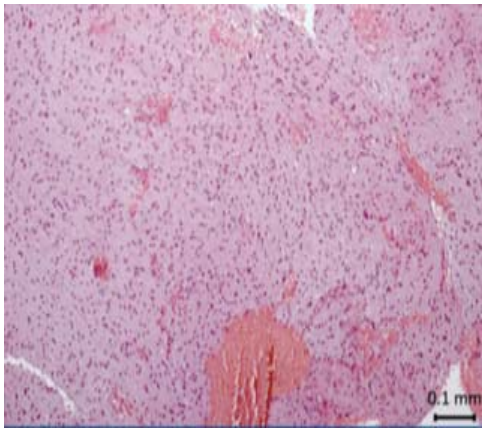
F. Medrano Muñoz[a], A. Garza Peña[b]

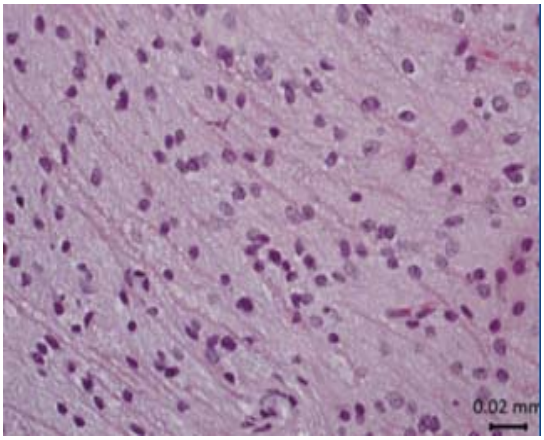
[a]Pediatric Resident. Multicentric Residency Program of Instituto Tecnológico de Estudios Superiores de Monterrey. Secretaria de Salud del Estado de Nuevo León. México • **B** Pediatric Neurology. San José Medical Center. Nuevo León. México.

Introduction:
Central nervous system (CNS) tumors represent 15-20% of all childhood tumors. Primary spinal cord tumors are rare entities that only for 4-10% of all primary tumors of the CNS. Intramedullary tumors are the least common, representing only 35% of spinal tumors. The most common intramedullary tumor is astrocytoma in 75% of the cases, being grade III the least common with a frequency of 25%.
Purpose:
To raise awareness about the wide variety of clinical manifestations that spinal tumors may present with in children.
Materials and Methods:
We present the clinical manifestations and diagnostic approach of a grade III intramedullary astrocytoma in a 21-month-old female with no prior history of illnesses. Symptoms started 11 days prior to admission, as limping of the left foot, as well as weakness, diminished movements and inability to handle objects with the right arm.
She was well oriented, with age-appropriate neural development, cranial nerves without alterations, sensorial exploration unreliable due to lack of cooperation, but apparently normal. Eutrophic extremities with diminished strength 3/5 (distal portion), 4/5 (proximal portion) of left extremities, right extremities 5/5. She had no trouble standing, Babinski (-), muscle reflexes 2/4, Brudsinki and Kerning (-).
Column and hip radiographies, as well as a head CT were reported normal. Head and spinal MRI, simple and contrasted, reported an heterogenic intramedullary lesion that went from C3 to T3 with hypo-intense areas in T1 and hyper-intense areas in T2, 7.6 cms long which obliterated sub-arachnoid space



A biopsy reported a fibrilar hyper cellular, astrocytic neoplastic lesion with hemorrhagic areas. Neither necrosis nor mitosis were found. Grade II intramedullary astrocytoma was diagnosed following WHO criteria. At patient's parents request, a second biopsy was taken, reporting 2 active mitosis, thus upgrading diagnosis to grade III.





Results

Clinical features classify our patient in stage II according to McCormick's scale. The most widely accepted classification is the WHO's, which is based in biopsy findings, and because of the mitosis found, it would correspond to a stage III neoplastic lesion.

Conclusions

In order to achieve a diagnosis, a high level of suspicion is necessary. Nowadays there's no scales intended for pediatric population as all scales are inferred from adult studies. Therefore it is imperative that an age-specific scale be made in order to give more accurate staging, prognosis and diagnosis.