6. Patel P, Sweiss K, Shatavi S, Peace D, Clark N, Rondelli D. The impact of novel influenza A (H1N1) after hematopoietic SCT. Bone Marrow Transplant. 2010; 45:1756-7.

7. Redelman-Sidi G, Sepkowitz KA,Huang CK, Park S, Stiles J, Eagan J, *et al*. 2009 H1N1 influenza infection in cancer patients and hematopoietic stem cell transplant recipients. J Infect. 2010;60:257-63.

Intramedullary Spinal Cord Abscess Masquerading as Spinal Tumor

***MUKUL AGGARWAL, KC AGGARWAL, *KARAMCHAND AND #ARCHANA AGGARWAL**

*From the Departments of Pediatrics, *Neurosurgery and #Radiology, VMMC and Safdarjung Hospital, New Delhi, India.*

Correspondence to:
Dr KC Aggarwal, Consultant in Pediatrics, VMMC and Safdarjung Hospital, New Delhi 110 029.
kcagg1955@rediffmail.com
Received: September 21, 2009;
Initial review: January 22, 2010;
Accepted: August 06, 2010.

We report a 5-year-old girl who presented with acute onset paraparesis with differential loss of sensation. Magnetic resonance imaging of spine revealed exophytic intramedullary mass lesion from T12 to L1. Peroperatively, the diagnosis was confirmed as abscess. The patient recovered following decompression and antibiotic treatment.

Key words: *Dissociative anesthesia, Intramedullary abscess, Paraparesis.*

Though spinal abscesses, especially acute epidural abscess or following caries spine are seen occasionally in pediatric population, intramedullary abscesses are seen very rarely [1-5]. We report a 5-year-old girl who presented as acute paraparesis without significant pyrexia or vertebral anomaly. Contrast enhanced MRI suggested a spinal cord tumor, which on surgery was detected to be an abscess.

CASE REPORT

A 5-year-old developmentally normal girl who presented with pain in lower abdomen for 7 days, followed by progressive weakness of both lower limbs and increased frequency of micturition of 5 days duration. Parents noticed decreased sensations in lower limbs. There are no history in recent past suggestive of any infections or treatment. On examination, the patient showed no spinal deformity or dermal sinus. Neurological examination revealed a cooperative child with normal higher functions. Cerebellar signs and signs of meningeal irritation were negative. Fundus exam was normal. Motor examination revealed hypotonia in lower limbs, power was 3/5 in dorsiflexion at both ankle and 4/5 in flexion and extension at both knee joints. Deep tendon reflexes were normally elicitable. Babinski reflex was bilaterally positive. There was differential loss of pain and temperature upto inguinal ligament in both lower limbs but vibration and position sense were preserved. There was no sacral anesthesia and anal reflex was elicitable. Investigations showed normal chest and dorsolumbar spine X-rays, urinalysis and CSF examination. Mantoux test was negative and the ESR was 22 mm in first hour.

MRI spine revealed well defined circumscribed partially exophytic intramedullary mass measuring 1.7 cm at D12- L1 level, which was hypointense on T1 weighted images and hyperintense on T2 weighted images with internal hemorrhage along with long segment cord edema from C5 to L1 level. Contrast enhancement with gadolinium showed scattered enhancement mainly at periphery, suggestive of an astrocytoma or ependymoma.

Per-operatively, intramedullary abscess at D12 level was found, which was drained. Pus sent for gram and AFB staining and culture revealed no growth. Subsequently, the patient was treated with oral prednisolone, ceftriaxone, cloxacillin and amikacin for 4 weeks. The patient showed marked improvement in all symptoms within 2 weeks of surgery. At discharge, 4 weeks post surgery, the patient was ambulatory with power of 4+ in both lower limbs and return of bladder and bowel sensations. The diagnosis of primary intramedullary spinal abscess was made.

DISCUSSION

Intramedullary spinal cord abscess is rarely seen in children with only 38 reports in children [1]. It occurs more frequently in males with peak incidence in first and

third decades of life [2]. Solitary abscess is more common and seen mostly in the thoracic cord. Abscesses are considered primary when no other infection source can be found. Secondary abscesses (upto 85% cases) arise from another infection site, either contiguous to cord (dermal sinus or neural tube defect) or distant (most commonly from lung) [1, 3]. They are also classified as acute (<1 week), sub-acute (1- 6 weeks) or chronic (>6 weeks) [2]. Our case did not show a congenital malformation of the spine and clinical features were of insidious onset, suggestive of sub-acute primary solitary abscess. Organisms isolated include *Staphylococcus* [4] *and Mycobacterium tuberculosis* [5]. However, 25-40% abscesses are sterile on culture, as in our case [4].

In an acute presentation, symptoms of infection (*e.g.* fever, backache, malaise) are common. Chronic cases might mimic features of intramedullary tumor and show neurological symptoms [6]. The procedure of choice for diagnosis of intramedullary spinal abscess is gadolinium-enhanced MRI that shows rim enhancement of its margins. Spinal cord abscesses produce homogenous enlargement on T1-weighted images and hyperintensity on T2-weighted images [4]. These findings may be seen in intramedullary tumors as well.

Treatment of intramedullary abscesses involves surgical drainage and appropriate antibiotics. Steroids are used to reduce spinal cord swelling and associated edema [7]. Paradoxical increase in size of lesion may occur necessitating surgical intervention [8].

Approximately 70% of patients may have residual neurological sequelae [9]. Some patients may show paraplegia due to recurrent or non-resolving abscess and infarct due to vascular occlusion and inflammation.

Contributors: MA and KCA, managed the case and drafted the manuscript. KCA shall act as the guarantor. AA interpreted radiological investigations. Karamchand operated upon case.
Funding: None.
Competing interest: None stated.

REFERENCES

1. Ditullio MV. Intramedullary spinal cord abscess: case report with review of 53 previously described cases. Surg Neurol. 1997;7:351-4.
2. Menezes AH, Graf CJ, Perret GE. Spinal cord abscess: review. Surgical Neurology. 1977;8:461-7.
3. Benzyl D, Epstein MH, Knuckey NW. Intramedullary epidermoid associated with an intramedullary spinal abscess secondary to a dermal sinus. Neurosurgery. 1992;30:118-21.
4. Murphy KJ, Brunberg JA, Quit DJ, Kazanjian PH. Spinal cord infection: myelitis and abscess formation. AJNR AM J Neuroradiol. 1998;19:341-8.
5. Hoda MF, Prasad R, Singh VP, Maurya P, Singh K, Sharma V. Spinal intramedullary tubercular abscess: a case report. Indian J Tuberc. 2005;52:211-4.
6. Guzel N, Eras M, Guzel DK. A child with spinal intramedullary abscess. Childs Nerv Syst. 2003;19;773-6.
7. Schroeder KA, Mckeever PE, Schaberg DR, Hoff JT. Effect of dexamethasone on experimental brain abscess. J Neurosurgery. 1987;66:264-9.
8. Citow JS, Ammirati M. Intramedullary tuberculoma of the spinal cord: Case report. Neurosurgery. 1994;35:327-30.
9. Kalia V, Vibhuti, Aggarwal T. Holocord intramedullary abscess: clinical brief. Indian J Pediatr. 2007;74:589-91.

Disseminated Strongyloidiasis in a Immunocompromised Host

SUNEEL C MUNDKUR, SHRIKIRAN AROOR AND K JAYASHREE

From the Department of Pediatrics, Kasturba Medical College, Manipal, India.

Correspondence to:
Dr Suneel C Mundkur,
Associate Professor, Pediatrics,
KMC Manipal, Karnataka, India.
Suneel_cm@hotmail.com
Received: December 12, 2009;
Initial Review: February 09, 2010;
Accepted: August 23, 2010.

Strongyloidiasis in an immunocompromised patient has the potential to be life threatening. We describe a boy who was on steroids for acute demyelinating myelitis and receiving antibiotics for *E.coli* UTI and meningitis. He developed anasarca, malabsorption, malnutrition and left ventricular failure. Duodenal biopsy revealed abundant rhabditiform larvae of *Strongyloides stercoralis*. The diagnosis went unsuspected and proved fatal. This emphasizes the need to have a high index of suspicion and early intervention for *S. stercoralis* in immunosuppressed persons who present with refractory gastrointestinal symptoms.

Key words: *Immunodeficiency, Strongyloidiasis.*