A case of intracranial hydatid cyst in a 10 year old child

***Dipika Singh[1], Bina Butala[2], Veena Shah[3]**

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Case report

A 10 year old girl was admitted with a history of two episodes of seizures within a period of 6 months associated with tremors and weakness in the left upper and lower limbs. She was treated with phenytoin sodium and dexamethasone, both given orally. On examination, she was conscious, oriented and neurological examination revealed left hemiparesis with motor power grade of 5/6. Her blood investigations and ultrasonography of abdomen were normal. Computed tomography (CT) scan of the brain showed a porencephalic cyst communicating with the right ventricle with a marked midline shift (Figure 1).

Magnetic resonance imaging (MRI) of brain showed a well-defined mass lesion 82 x 73 mm in axial, 67 x 68 mm in coronal and 78 x 70 mm in sagittal planes in right parietal basal ganglia area with mass effect and without perilesional vasogenic oedema and without restriction of diffused weighted imaging. Surgical removal of the cyst was done. The cyst ruptured during the course of surgery and for the prevention of anaphylactic reaction, injection chlorpheniramine maleate and injection hydrocortisone were given. The cyst with the contents was successfully removed. The diagnosis of hydatid cyst was established by histopathology.

[1]*Assistant Professor,* [2]*Professor,* [3]*Head of Department & Professor, Department of Anaesthesia and Critical Care, G. R. Doshi and K. M. Mehta Institute of Kidney Diseases & Research Centre - Dr. H.L. Trivedi Institute of Transplantation Sciences Ahmedabad, Gujarat, India*
**Correspondence:* dr.dips5@gmail.com

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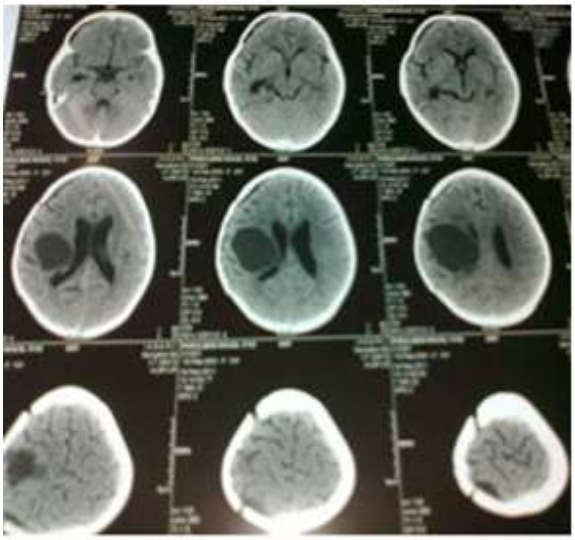

Figure 1: *Transverse CT scan of brain showing cyst occupying the white matter of cerebrum*

Discussion

Intracranial hydatid disease is a rare presentation with reported incidence of 1.2% of all cases of hydatid disease[1-2]. Hydatid disease is endemic in the middle east, Mediterranean countries, South America, North Africa and Australia. Central nervous system hydatid disease is more common in the paediatric population[3-4].

Ali M. *et al.* reported 18 cysts in supratentorial region and one cyst in posterior fossa infratentorially[1]. The parietal lobe is the commonest site and it was seen in three cases reported by S. Gupta[5]. Solitary hydatid cyst in the lateral ventricle was seen in one case reported by S. Gupta[5]. Our patient was having a single cyst in right parieto-right basal ganglia area with mass effect. There is no consensus on the growth rate of the hydatid cyst of the brain and it has been variably reported from 1.5 to 10cm per year[5]. Intracranial hydatid cysts are commonly solitary. Multiple intracranial cysts are rare. Our patient had a solitary hydatid cyst. Onal C *et al* found 12 cases of single uniloculated cysts in 7 and single multiloculated cysts in two[6].

All cases of Gupta et al presented with raised intracranial pressure (ICP)[5]. Ali M. *et al.* observed headache, vomiting, and seizures in 16 cases[1]. Our patient also had a history of seizures twice within 6 months. The treatment of hydatid cyst is surgical and the aim of surgery is to excise the cyst in toto without rupture to prevent recurrence and anaphylactic reaction[1]. Ali M. *et al.* reported a case where the cyst was ruptured during delivery due to injecting saline with brain cannula which punctured the cyst wall[1]. In our case also the cyst ruptured during surgery. We gave injection chlorpheniramine maleate and injection hydrocortisone to prevent anaphylactic shock. S Gupta also reported cyst rupture in three cases during surgery[5].

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