Pakistan Journal of Neurological Sciences (PJNS)

Volume 8 | Issue 2 Article 3

4-2013

Asymptomatic unilateral cerebellar hypoplasia in an adult patient - A unique presentation.

Pari Gul
Liaquat National Hospital, Karachi, Pakistan

Bushra Rehan
Liaquat National Hospital, Karachi, Pakistan

Saleha Anwar
Liaquat National Hospital, Karachi, Pakistan.

Ambreen Majeed
Liaquat National Hospital, Karachi, Pakistan.

Ayub Mansoor
Liaquat National Hospital, Karachi.

ASYMPTOMATIC UNILATERAL CEREBELLAR HYPOPLASIA IN AN ADULT PATIENT - A UNIQUE PRESENTATION.

Pari Gul, Bushra Rehan, Saleha Anwar, Ambreen Majeed, Ayub Mansoor
Liaquat National Hospital, Karachi.

Correspondence to: Dr Saleha Anwar, Assistant Professor and Consultant Radiologist, Liaquat National Medical College and Hospital, Karachi. Email: salehaanwar@hotmail.com

ABSTRACT

Unilateral cerebellar hypoplasia is a relatively rare malformation. We report a case of 54 year old female patient who presented with single episode of sudden unconsciousness and slurring of speech. Imaging finding suggests the diagnosis of unilateral cerebellar hypoplasia. The patient recovered with conservative management probably because the symptoms were due to Transient ischemic attack not due to hypoplasia.

INTRODUCTION

This is a relatively rare malformation. In literature, the case reports available regarding unilateral cerebellar hypoplasia are mostly of pediatric age group. We report an unusual case of unilateral cerebellar hypoplasia that was detected in an adult previously asymptomatic patient following TIA.

REPORT

54 year old female patient was admitted in ER with complaints of slurring of speech and an episode of sudden loss of consciousness.On examination she had a B.P of 180/120 mmHg. No other significant finding was seen during examination. Her past history was also unremarkable. She never had cerebellar signs like ataxia or any psychomotor abnormality. MRI brain was done to rule out stroke. MRI showed asymmetry of cerebellar hemispheres, left cerebellum appeared hypoplastic. There was mild asymmetry of vermis and brain stem (mid brain and pons). Few ischemic infarctions were seen in bilateral fronto parietal and parietal periventricular region. Based on these findings diagnosis of Unilateral cerebellar hypoplasia was made. The patient was managed conservatively for TIA and recovered.

The Unilateral cerebellar hypoplasia is rare disorder characterized by the loss of volume in cerebellar hemispheres ranging from mild asymptomatic to severe symptomatic cases[1].Cerebellar hypoplasia is frequently diagnosed by second trimester prenatal sonology[2].

It is frequently associated with psychomotor disorders than with cerebelllar symptomology[3].

The etiology of cerebellar hypoplasia is not definitely known. Pathologic evidence of cerebellar injury due to birth asphyxia has been described.Cerebellar hypoplasia associated with hypoplasia or aplasia of the cerebellar or vertebral arteries suggests a vascular etiology. Genetic mutations may also have a role. Patients with diffuse hypoplasia generally have normal cerebral[4].

It is observed that mild asymmetry in the size of the cerebellar hemispheres is occasionally seen as an incidental finding without clinical significance. Also involvement of the cerebellar vermis is associated with poor cognitive outcome whereas intact vermis is associated with normal cognitive outcome and truncul ataxia[5].

On the basis of MRI findings cerebellar malformations can be divided into those associated with hypoplasia and those with dysplasia. Malformation can either be focal or diffuse[6].

Also in our case Unilateral cerebellar hypoplasia was found in a patient with no previous evidence of neuromuscular or metabolic disease and no past history of trauma or anoxia. In present case the patient symptoms were due to TIA which responded to anti hypertensive treatment. The unilateral cerebellar hypoplasia was an incidental finding.

REFERENCES

1. Granados AV, Pascual PS, Pascual CI.Unilateral cerebellar hypoplasia.An alteration of vascular origin Revista de Neurologia 2003, 36(9):841-5
2. Deborah M,John R.Prenatal Diagnosis of Unilateral Cerebellar Hypoplasia.Journal Diagnostic Medical

Sonography. 2012 September/October,28(5)
3. Benbir G, Kara S, Yalcinkaya BC, Karhkaya G, Tuysuz B, Kocer N, Yalcinkaya C. Unilateral cerebellar hypoplasia with different clinical features. Cerebellum.2011 Mar;10(1):49-60.
4. Heather B Unilateral cerebellar hypoplasia.Advanced radiology services teaching.08/30/2009.
5. Poretti A, Limperopoulos C, Roulet-Perez E, Wolf NI, Rauscher C, Prayer D, Müller A, Weissert M, Kotzaeridou U, Du Plessis AJ, Huisman TA, Boltshauser E.Outcome of severe Unilateral cerebellar hypoplasia Dev Med Child Neurol. 2010 Aug;52(8):718-24. Epub 2009 Oct 23.
6. Poretti A, Limperopoulos C, Roulet-Perez E, Wolf NI, Rauscher C, Prayer D, Müller A, Weissert M, Kotzaeridou U, Du Plessis AJ, Huisman TA, Boltshauser E.Outcome of severe Unilateral cerebellar hypoplasia Dev Med Child Neurol. 2010 Aug;52(8):718-24. Epub 2009 Oct 23.
7. Vagh JD, Gadekar A, Agrawal A, Deshmukh K. Unilateral cerebellar hypoplasia. Indian J Radiol Imaging 2009;19:146-7.

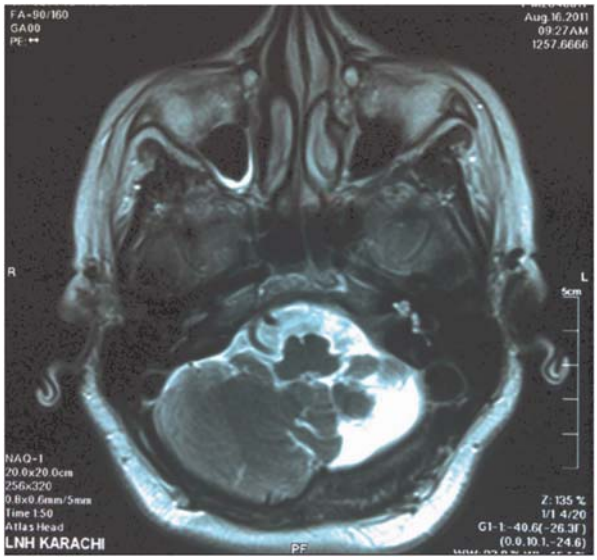

Figure 2: Brain MRI.

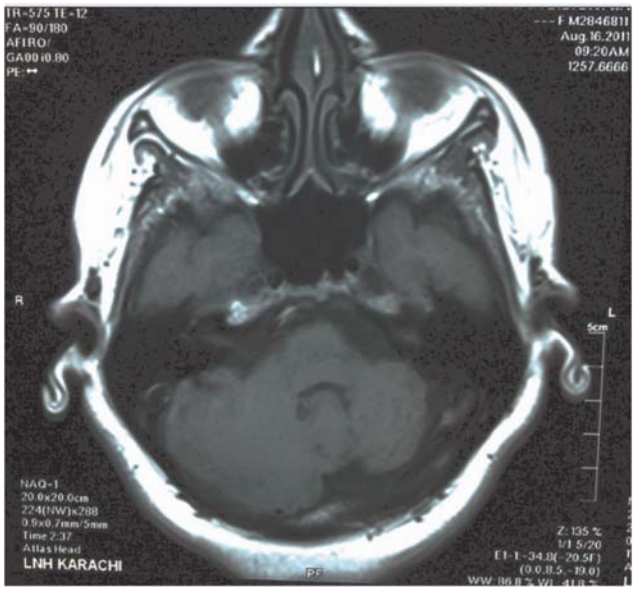

Figure 1: Brain MRI.

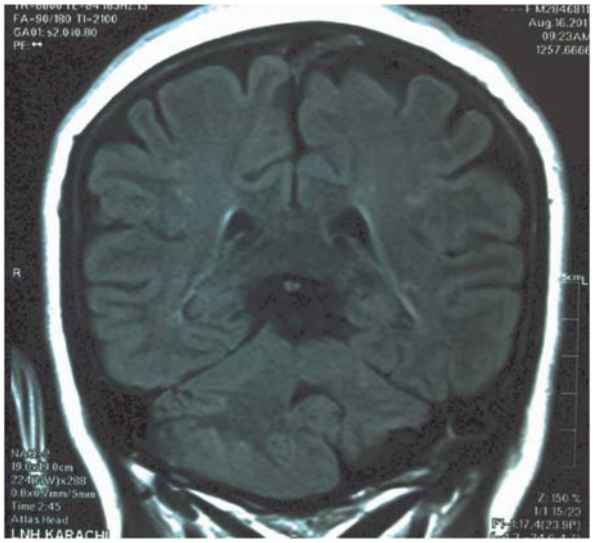

Figure 3: Brain MRI.