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CASE REPORT: INTEGRATIVE MEDICINE IN THE MANAGEMENT OF CAVERNOMA IN A 7 - YEAR OLD CHILD

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ABSTRACT

The perspective of modern medicine is progressing towards patient centred treatment and care, part of this progress is the integration between modern and alternative medicine, this concept is known as "Integrative Medicine." The demand of integrative medicine is steadily on the rise. We report a case of cavernous haemangioma in 7-year old child treated successfully with homeopathy medicine. Post-treatment MRI brain has showed no recurrence of disease.

KEYWORDS: Cavernous haemangioma, Integrative medicine, Homeopathy.

INTRODUCTION

Cavernous haemangioma is a benign vascular tumour or haemangioma. A collection of dilated blood vessels forming a lesion, which leads to a reduction in blood flow through cavities or caverns. The pathological findings suggest that the cells of the vessels do not form the necessary junctions with surrounding cells so the structural support from the smooth muscle is hampered which causes a leakage of blood into the surrounding tissue. The leakage is mainly responsible for the variety of symptoms associated with the disease.[1,2,3] This condition is also known as cavernous angioma, cavernoma, or cerebral cavernoma (CCM). The true incidence of cavernous haemangioma is difficult to calculate, as majority of cases are misdiagnosed. Depending upon the site of tumour, symptoms may be minor symptoms such as headache, nausea, vomiting and major symptoms such as seizures, vision problems, difficulty in speech, memory loss etc. CCM primarily occurs in adults; however, 25% of CCM cases are children.[4,5]

Since there is no specific aetiology, research reveals that the genetic mutations are primarily responsible for the disease.[4] The cerebral cavernous malformations sometimes have a positive family history. The Magnetic resonance imaging (MRI) is the standard and the most sensitive method for the diagnoses. The radiographic appearance is most commonly described as "popcorn" or "mulberry"-shaped.[6,7] The treatment depends on the site, size and the symptoms, and the history of haemorrhage from the lesion. Surgical treatment such as microsurgery and radiosurgery along with the medical management are the currently available treatment.[8]

CASE PRESENTATION

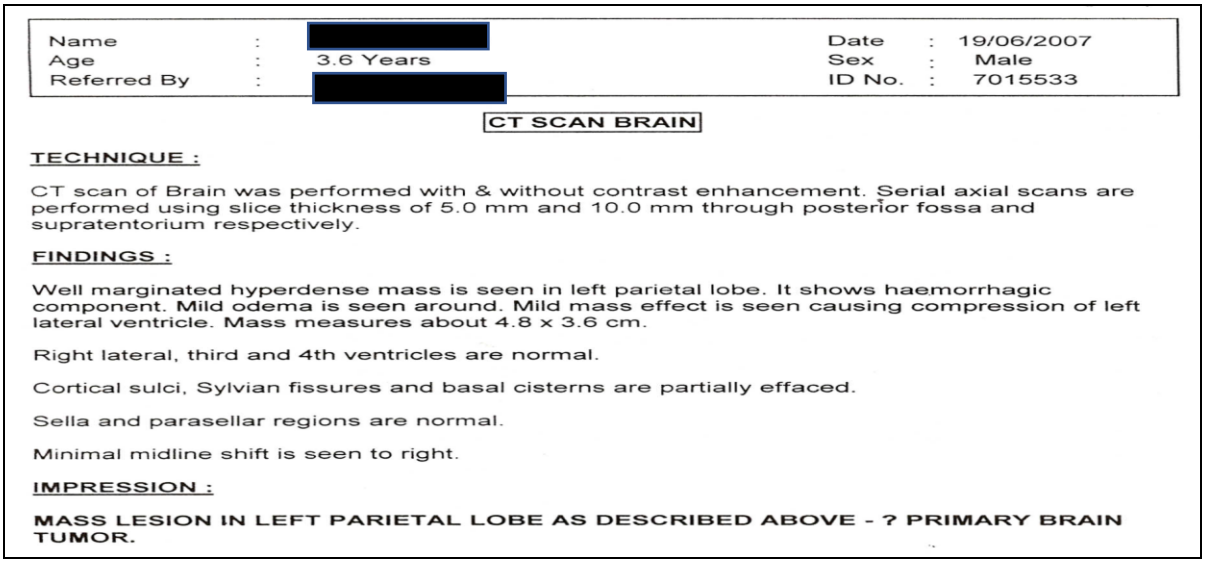
In October 2011, a 7-year-old boy known case of post-operative Left temperoparietal cavernoma presented to us with complaints of headache and enuresis for one month with associated history of convulsions and inability to concentrate in school for 3 years.

In June 2007, CT Brain (plain and contrast) revealed left temperoparietal, well marginated spherical hyper-dense mass with hyper-dense components and histopathologically: thin walled blood vessels containing blood clots suggestive of cavernoma. (Picture 1/ Picture 2) for which he received corticosteroids, anti-convulsants and underwent Left temporoparietal craniotomy. In June 2011, there was an exacerbation of headache, nausea, frequent convulsions, and whereas Magnetic Resonance Image - Brain revealed left parietal lobe gliotic changes and small cavernous malformation in right parietal lobe. (Picture 3) In August 2011, the electro encephalogram (EEG) was suggestive of fronto central dysfunction. (Picture 4) The progressive symptoms and disease, despite the ongoing treatment, inclined the patient to seek treatment in alternative medicine.

In addition to the above symptoms, patient’s behavioural history revealed that he is hyperactive, very energetic, enjoys racing, not scared of falling or hurting himself and does not feel exhausted after playing the whole day. He does not follow orders and instruction. The patient loves nature, is fond of art, has sibling jealousy, craves for attention and has a fear of rejection.

Based upon the patient’s behavioural history and other constitutional symptoms he was prescribed Carcinocin 200 two doses. November 2011 onwards the patient started to show clinical improvement and follow-up Electroencephalogram (EEG) was within normal limits

and MRI Brain showed stable gliotic changes and no recurrent lesions when compared to the previous MRI. (Picture 5 / Picture 6)



Name : [redacted] Date : 19/06/2007
Age : 3.6 Years Sex : Male
Referred By : [redacted] ID No. : 7015533

CT SCAN BRAIN

TECHNIQUE :

CT scan of Brain was performed with & without contrast enhancement. Serial axial scans are performed using slice thickness of 5.0 mm and 10.0 mm through posterior fossa and supratentorium respectively.

FINDINGS :

Well marginated hyperdense mass is seen in left parietal lobe. It shows haemorrhagic component. Mild odema is seen around. Mild mass effect is seen causing compression of left lateral ventricle. Mass measures about 4.8 x 3.6 cm.

Right lateral, third and 4th ventricles are normal.

Cortical sulci, Sylvian fissures and basal cisterns are partially effaced.

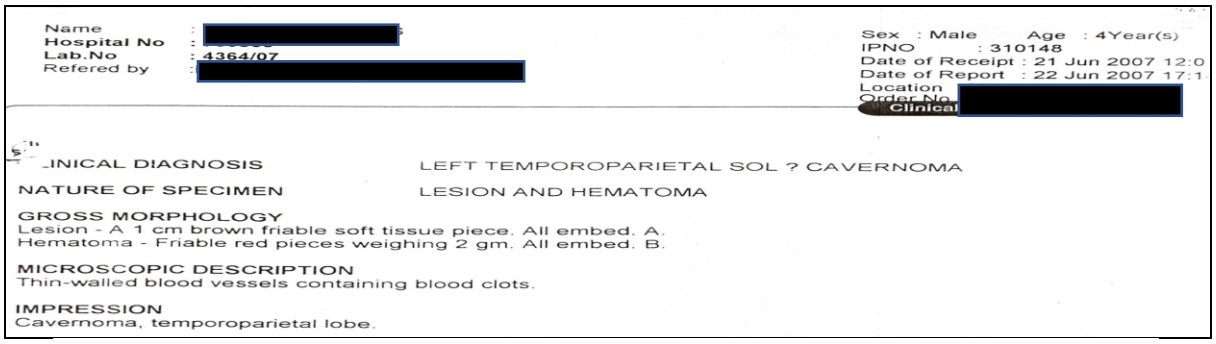
Sella and parasellar regions are normal.

Minimal midline shift is seen to right.

IMPRESSION :

MASS LESION IN LEFT PARIETAL LOBE AS DESCRIBED ABOVE - ? PRIMARY BRAIN TUMOR.

Picture 1: CT Brain June 2007: Mass lesion in the left parietal lobe.



Name : [redacted]
Hospital No : [redacted]
Lab.No : 4364/07
Refered by : [redacted]

Sex : Male Age : 4Year(s)
IPNO : 310148
Date of Receipt : 21 Jun 2007 12:0
Date of Report : 22 Jun 2007 17:1
Location
Order No [redacted]
Clinical

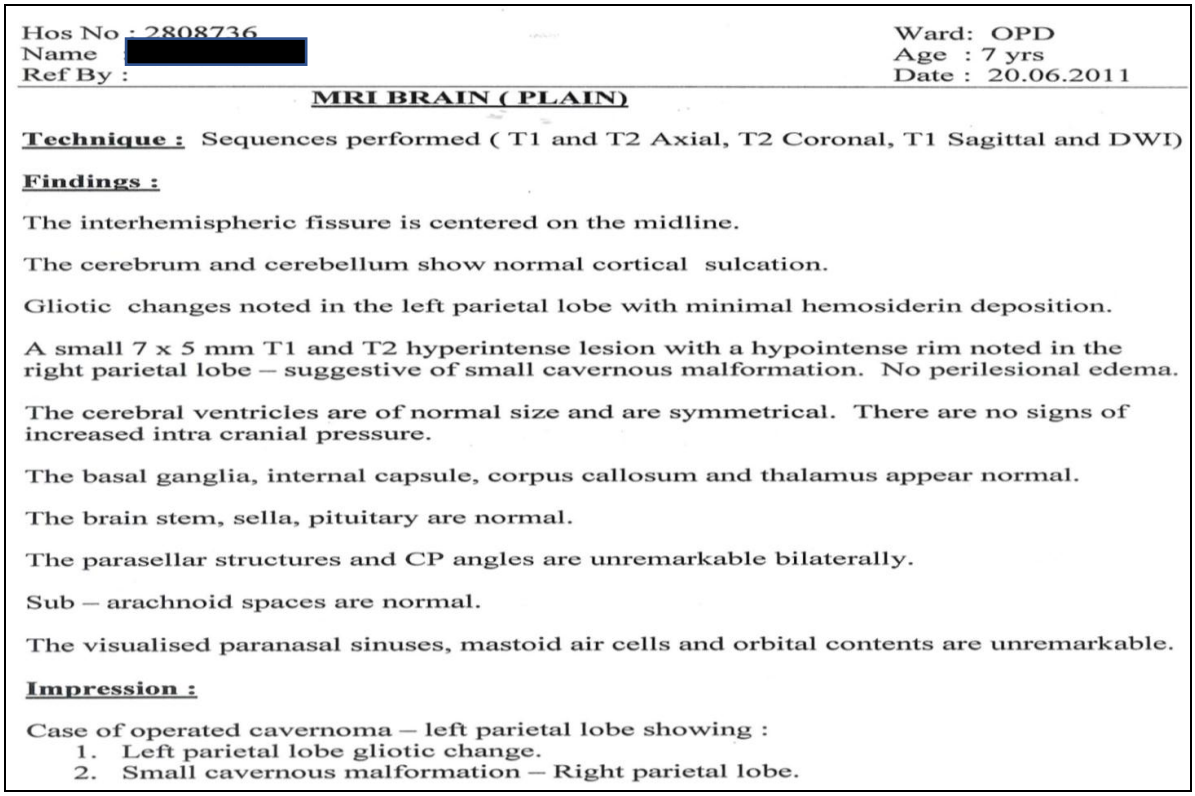
-INICAL DIAGNOSIS LEFT TEMPOROPARIETAL SOL ? CAVERNOMA
NATURE OF SPECIMEN LESION AND HEMATOMA

GROSS MORPHOLOGY
Lesion - A 1 cm brown friable soft tissue piece. All embed. A.
Hematoma - Friable red pieces weighing 2 gm. All embed. B.

MICROSCOPIC DESCRIPTION
Thin-walled blood vessels containing blood clots.

IMPRESSION
Cavernoma, temporoparietal lobe.

Picture 2: Histopathological Report June 2007: temporoparetal lobe Cavernoma.



Hos No : 2808736 Ward: OPD
Name [redacted] Age : 7 yrs
Ref By : Date : 20.06.2011

MRI BRAIN (PLAIN)

Technique : Sequences performed (T1 and T2 Axial, T2 Coronal, T1 Sagittal and DWI)

Findings :

The interhemispheric fissure is centered on the midline.

The cerebrum and cerebellum show normal cortical sulcation.

Gliotic changes noted in the left parietal lobe with minimal hemosiderin deposition.

A small 7 x 5 mm T1 and T2 hyperintense lesion with a hypointense rim noted in the right parietal lobe – suggestive of small cavernous malformation. No perilesional edema.

The cerebral ventricles are of normal size and are symmetrical. There are no signs of increased intra cranial pressure.

The basal ganglia, internal capsule, corpus callosum and thalamus appear normal.

The brain stem, sella, pituitary are normal.

The parasellar structures and CP angles are unremarkable bilaterally.

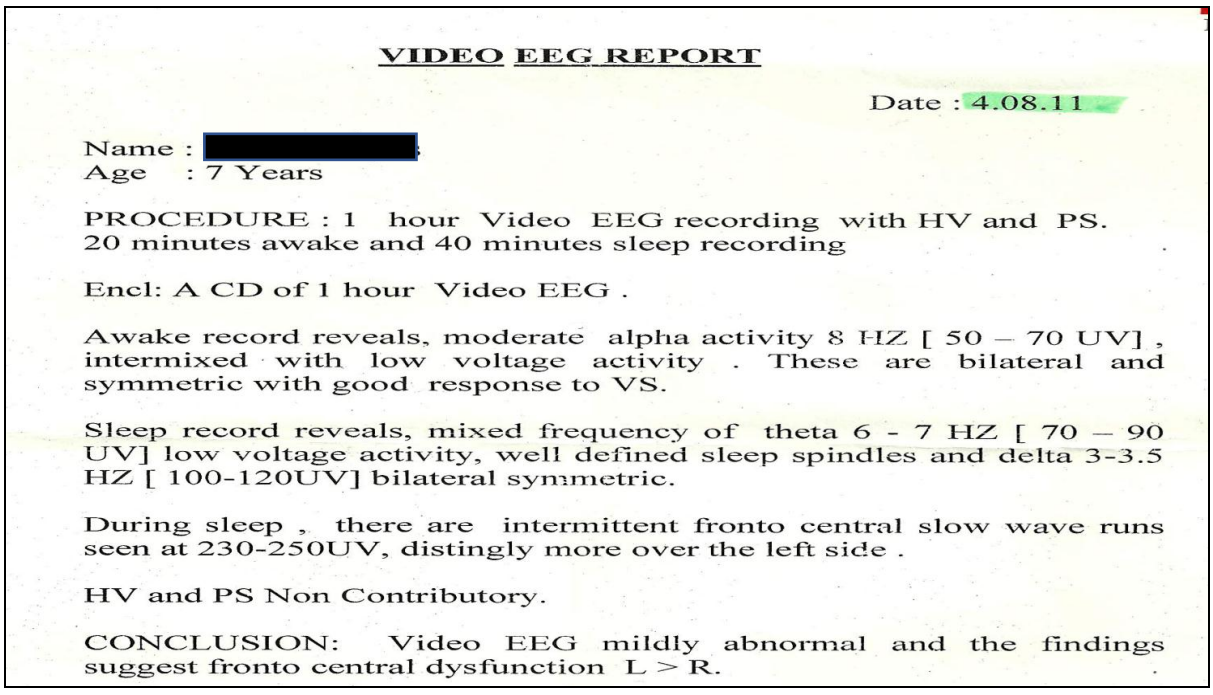
Sub – arachnoid spaces are normal.

The visualised paranasal sinuses, mastoid air cells and orbital contents are unremarkable.

Impression :

Case of operated cavernoma – left parietal lobe showing :
1. Left parietal lobe gliotic change.
2. Small cavernous malformation – Right parietal lobe.

Picture 2: MRI Brain June 2011: left parietal lobe gliotic change and small cavernous malformation – right parietal lobe.



VIDEO EEG REPORT

Date : 4.08.11

Name : [redacted]
Age : 7 Years

PROCEDURE : 1 hour Video EEG recording with HV and PS. 20 minutes awake and 40 minutes sleep recording

Encl: A CD of 1 hour Video EEG .

Awake record reveals, moderate alpha activity 8 HZ [50 – 70 UV] , intermixed with low voltage activity . These are bilateral and symmetric with good response to VS.

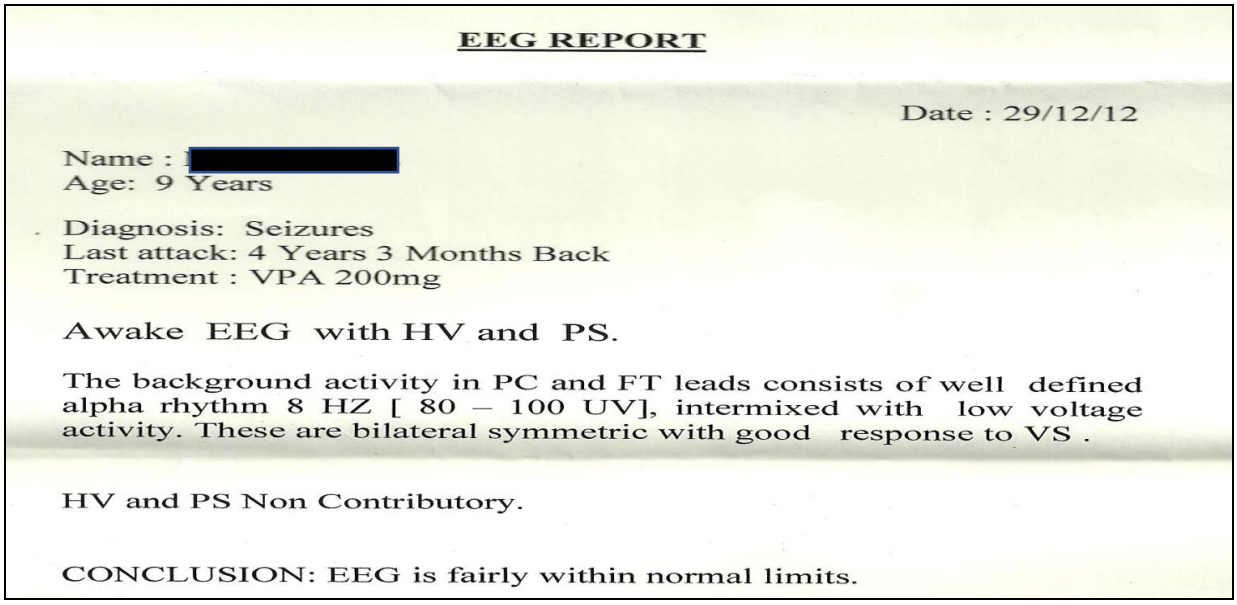
Sleep record reveals, mixed frequency of theta 6 - 7 HZ [70 – 90 UV] low voltage activity, well defined sleep spindles and delta 3-3.5 HZ [100-120UV] bilateral symmetric.

During sleep , there are intermittent fronto central slow wave runs seen at 230-250UV, distingly more over the left side .

HV and PS Non Contributory.

CONCLUSION: Video EEG mildly abnormal and the findings suggest fronto central dysfunction L > R.

Picture 3: Electroencephalogram August 2011 : Fronto central dysfunction.



EEG REPORT

Date : 29/12/12

Name : [redacted]
Age: 9 Years

Diagnosis: Seizures
Last attack: 4 Years 3 Months Back
Treatment : VPA 200mg

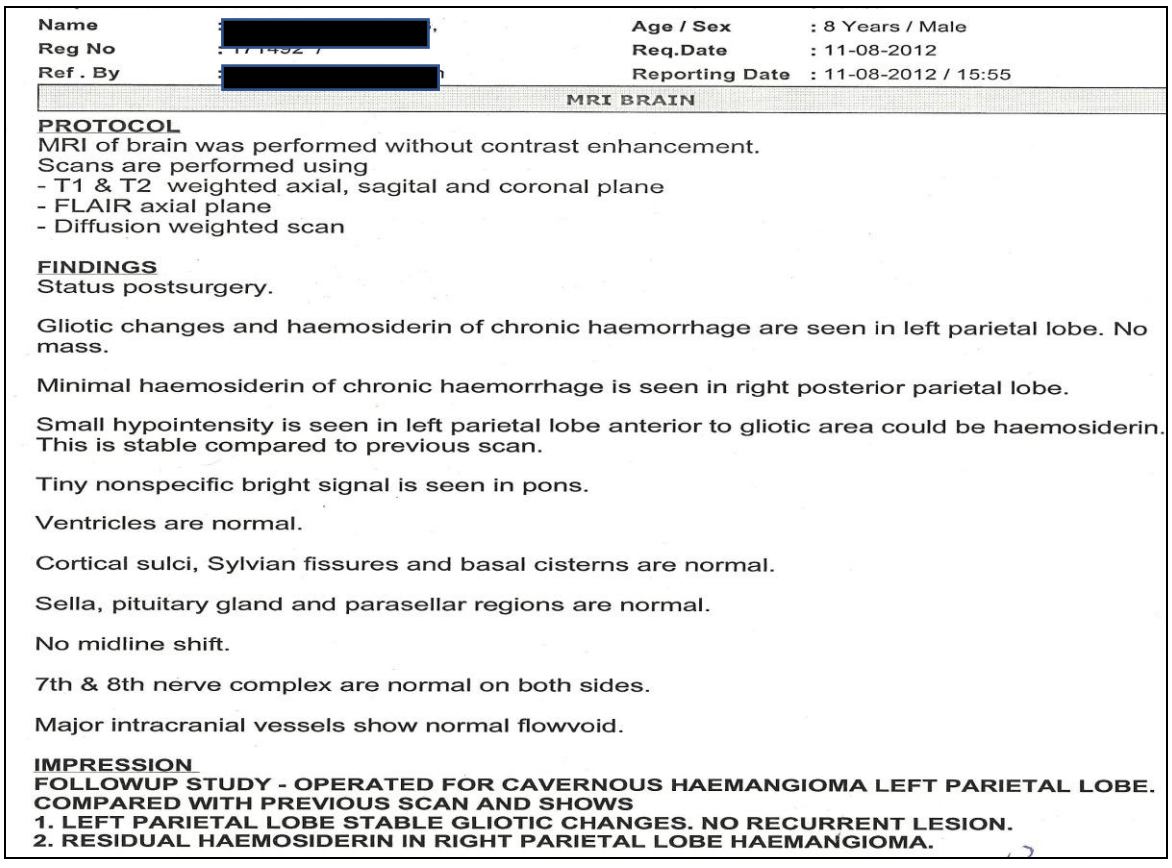
Awake EEG with HV and PS.

The background activity in PC and FT leads consists of well defined alpha rhythm 8 HZ [80 – 100 UV], intermixed with low voltage activity. These are bilateral symmetric with good response to VS .

HV and PS Non Contributory.

CONCLUSION: EEG is fairly within normal limits.

Picture 4: Electroencephalogram December 2012 - Normal report.



Name	[redacted]	Age / Sex	: 8 Years / Male
Reg No	[redacted]	Req.Date	: 11-08-2012
Ref . By	[redacted]	Reporting Date	: 11-08-2012 / 15:55

MRI BRAIN

PROTOCOL
MRI of brain was performed without contrast enhancement.
Scans are performed using
- T1 & T2 weighted axial, sagital and coronal plane
- FLAIR axial plane
- Diffusion weighted scan

FINDINGS
Status postsurgery.

Gliotic changes and haemosiderin of chronic haemorrhage are seen in left parietal lobe. No mass.

Minimal haemosiderin of chronic haemorrhage is seen in right posterior parietal lobe.

Small hypointensity is seen in left parietal lobe anterior to gliotic area could be haemosiderin. This is stable compared to previous scan.

Tiny nonspecific bright signal is seen in pons.

Ventricles are normal.

Cortical sulci, Sylvian fissures and basal cisterns are normal.

Sella, pituitary gland and parasellar regions are normal.

No midline shift.

7th & 8th nerve complex are normal on both sides.

Major intracranial vessels show normal flowvoid.

IMPRESSION
FOLLOWUP STUDY - OPERATED FOR CAVERNOUS HAEMANGIOMA LEFT PARIETAL LOBE. COMPARED WITH PREVIOUS SCAN AND SHOWS
1. LEFT PARIETAL LOBE STABLE GLIOTIC CHANGES. NO RECURRENT LESION.
2. RESIDUAL HAEMOSIDERIN IN RIGHT PARIETAL LOBE HAEMANGIOMA.

Picture 5: MRI Brain August 2012 - Compared with previous MRI study no recurrent lesion found.

DISCUSSION

Integrative medicine refers to the conjunction of alternative medical practices with mainstream medical care. Culturally diverse communities may benefit from an integration between western and alternative forms of medicine that gives holistic patient care. These benefits have been seen in a variety of settings across different nations. For example, a case-controlled study conducted in South Korea that compared modern medicine with integrative medicine; a combination of modern and traditional Korean medicine in management of acute stroke revealed that the patients who received integrative medicine had a reduced all-risk mortality at both 3 and 12 months after discharge.[9,10] Integrative medicine should be the preferred approach in management of diseases where there are limited treatment options and/or side effects of the modern drugs weight out their benefit e.g. management of management of malignant diseases, chronic dermatological conditions and auto immune disorders.

Cerebral cavernomas account for approximately 5 to 10% of all vascular malformations.[5] Majority of the cavernomas typically present between the second and fourth decades and youngest occurrence in children at almost 4 months of age. The usual symptoms of a cavernoma are headache, seizures, progressive neurologic deficit, nausea and vomiting. Unfortunately, incidence of haemorrhage in case of CMs are reported to be 8% to 37% in adults and 36% to 78% in children. Neuroimaging especially MRI and EEG can be used for diagnosis and assessing progress of disease.[5,8] In the case presented, pre-treatment and post-treatment status were compared with the help of EEG and MRI.

The Carcinocin is indicated for treatment and prevention of cancer. The Carcinocin personality may have following characteristics: perfectionist, sensitive to hurt reprimand and offense, tendency to suppress and bear all emotions without protest; artistic, loves music and dance, anxious, not worried about success or failure. In reference to the above behaviours and characteristics Carcinocin 200mg was the drug of choice.

By this case report, we would like to emphasize benefits of integrative medicine for betterment of patient with diseases like Cavernous Haemangioma and many other illnesses.[11,12]

CONCLUSION

The increasing popularity of integrative medicine is rooted in the effort to improve patient care. Clinical research on alternative medicine (Homeopathy and Ayurveda) in management of acute and chronic illnesses and disorders is highly recommended. This case may provide a new incite to the practicing neurosurgeons to consider a homeopathy as a treatment option when treating patient of cerebral cavernoma and hence promoting integrative medicine approach.

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