Original Research Paper

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General Medicine

A RARE PRESENTATION OF TUBERCULOUS MENINGITIS (TBM) AS A SYNDROME OF INAPPROPRIATE ANTI DIURETIC HARMONE SECRETION (SIADH) AND OBSTRUCTIVE HYDROCEPHALUS

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ABSTRACT SIADH has been reported in patients with CNS disorders like Subarachnoid Hemorrhage ,Infections , Head injury ,Brain tumors . it is one of the most frequent cause of hypoosmolality . Here we have presented a rare case of Tuberculous meningitis as Syndrome of Inappropriate AntiDiuretic Hormone Secretion (SIADH) and Obstructive Hydrocephalus.

KEYWORDS : TB meningitis , SIADH

INTRODUCTION

A third of the world's population is thought to be infected with Mycobacterium tuberculosis, and over 70,000 people have Tuberculous Meningitis (TBM). Subarachnoid haemorrhage, infections, head trauma, and brain tumours are just a few of the CNS conditions that have been linked to SIADH in patients. It is among the main causes of low osmolality. The cause of the neurological symptoms is the low plasma osmolality, which causes water to move from the extracellular to the intracellular fluid compartment.

The prognosis could be worsened by neurological complications such as cerebral infarction and Hydrocephalus, which are frequent. Early or late in the clinical course, as well as before or after the start of anti-tubercular therapy, hydrocephalus might develop.

MATERIALS AND METHODS:

Here we present a rare presentation of TB Meningitis presenting as SIADH and Obstuctive Hydrocephalus .We followed the case presented to our OPD , till the Neurosurgical intervention was done.

PATIENT PRESENTATON:

A 32-year-old male patient arrived at the emergency room complaining of altered behaviour, a history of altered sleep patterns, being unable to identify family members for seven days, and a history of vomiting (3-4 episodes) two days prior. The patient was a known smoker and alcoholic.

ON EXAMINATION:

Patient is irritable, not obeying oral commands , Blood pressure - 112/74mmhg, Pulse -104 bpm, SPO2 – 98%@ room temperature.

CNS EXAMINATION:

Kernig's sign – present
Neck stiffness – present
b/l plantar - withdrawal
other systems' examination: normal

CLINICAL COURSE:

CSF sample was turbid and on examination showed protein – 418 mg/dl ,
Glucose - 32mg/dl ,
Total count – 130 cells/ cu.mm (lymphocytes -95%, neutrophils -5%),
CSF analysis of CBNAAT was positive .

Serum omolality 265mosm/kg ,
Na-127mmol/lit, k-3.8mmol/l ,
urea – 28mg/dl ,
uric acid – 3.7 mg/dl
Urine osmolality – 512mosm/kg , Na -35 mmol/lit

MRI BRAIN &MR spectroscopy: Ring enhancing lesion at superior cerebellar cistern with significant elevation of lipid lactate peak . abnormal meningeal enhancement at perimesencephalic cistern with mild obstructive hydrocephalus.

CT CHEST: Evidence of reticulnodular interstitial thickening seen in right apex –koch's .

Patient recovered after treatment with ATT , correction of hyponatremia, with 3%Nacl and ventriculoperitoneal shunt for hydrocephalus.

Fig 1:Patient on admission

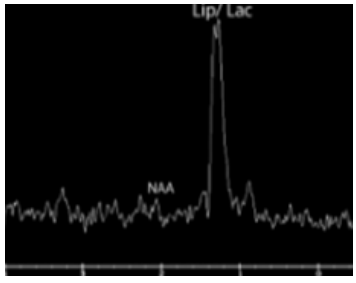

Fig 2:MR Spectroscopy

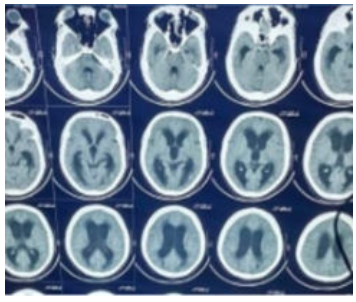

Fig 3:HYDROCEPHALUS

Fig 4: AFTER ATT and VP shunt

DISCUSSION:

A neurological condition with a high mortality and morbidity rate is Tubercular meningitis. Excessive ADH secretion from the posterior pituitary, stress reactions, or hypoxic injury have all been linked to the occurrence of SIADH in TBM. Hypoosmolar hyponatremia, high sodium levels in the urine, and normal renal and endocrine function are the characteristics of SIADH. The majority of the neurological symptoms that may be connected to hyponatemia are caused by the overhydration of brain cells. When the CSF route is blocked or CSF absorption is hindered, hydrocephalus can develop in the TBM. Cerebellar symptoms or signs may be the most useful focal neurological feature in assisting the practitioner in determining the presence of hydrocephalus. . The correlation between stage 2 or 3 TBM and hydrocephalus when it first manifests shows that hydrocephalus is an indicator of more severe disease , with a higher frequency of focal neurological signs and /impaired conciouness.

CONCLUSION:

Hydrocephalus is a common presenting feature of TBM. Patients with hydrocephalus tend to present later than those without it, therefore identifying it may aid in an early diagnosis and minimise any further delays in the start of antitubercular medication. In order to treat and diagnose TB meningitis, it is critical to recognise SIADH.

REFERENCES:

[1] Anderson RJ ,Chung HM , Kluge R and Schrier RW . hyponatremia .A prospective analysis of its epidemiology and the pathogenic role of vasopressin. Ann intern Med .1985;102:164-8.
[2] parsons M. the treatment of tuberculous meningitis . Tubercle 1989;70:79-82
[3] Edelman IS ,Leibman J, O'Meara MP and Birkenfeld LW . interrelations between serum sodium concentration , serum osmolality and total exchangeable sodium , total exchangeable potassium and total body water. J Clin invest . 1958;37:236-56
[4] Swart S, Briggs RS, Millac PA . Tuberculous meningitis in Asian patients . Lancet 1981; 2:15-16.