UNUSUAL PRESENTATION OF A CASE OF NEUROSARCOIDOSIS

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ABSTRACT
Neurosarcoidosis is an uncommon presentation of sarcoidosis; it can involve central and peripheral nervous system, cranial nerves. There is scarcity in the published data in respect to neurosarcoidosis in different regions in the globe. Again, there is absence of definite diagnostic criteria to diagnose neurosarcoidosis, so there is every chance of misdiagnose this case. There may be associated involvement of other system in the body. Here we discussed a case of neurosarcoidosis which presented in a very uncommon way.

KEYWORDS: Young boy, facial nerve and optic nerve involvement, uveitis, neurosarcoidosis.

INTRODUCTION
Sarcoidosis was first described by a dermatologist Dr. Johnathan Hutchinson in 1878; he described this disease as “Mortimer Malady” according to the name of his partner.[1] Next, in 1889, Dr. Ernest described a case as lupus pernio in the nose. In 1889, Cesar Boeck described it as “Multiple Benign Sarkoid of Skin” – it gives birth to the term Sarcoidosis. Sarcoidosis is noncaseous granulomatous inflammatory disease, most commonly affecting lungs, followed by heart and eyes. Nervous system is less commonly involved (5-15%).[2, 3] Within nervous system, incidence of facial nerve affection is 50%.[4] Incidence of sarcoidosis is bimodal in distribution, having most common between 20 to 40 years of age and females of age of 50 years.[5] In 1965, neurosarcoidosis was recognized by Winkler1. Neurosarcoidosis is characterized by inflammation and abnormal cellular deposition in central as well as peripheral nervous system involving brain, spinal cord and peripheral nerves.
Case presentation

16 year old boy complained of recurrent fever associated with vertigo along with bilateral redness of eyes, severe headache and photophobia for one month. Suddenly he developed aphasia. With these complaints he was admitted in this hospital. On enquiry, he told about the similar episode occurred two months ago, for which he got admitted in the hospital and recovered completely by conservative management.

On examination, there was raised temperature, tachycardia but no evidence of cervical, axillary or inguinal lymphadenopathy. Neurological examination revealed drooping of left side of the face including forehead, cheek and chin. He was unable to close his left eye. Both of his eyes were congested. Respiratory, Cardiological and abdominal examination showed no abnormality.

Blood investigations prior to admission this hospital, showed total white blood cell count of 10000/CC, SGPT level 245IU/L and serum angiotensin level of 20.6 IU/L. But after admission, complete hemogram showed neutrophilic leukocytosis (13400/cc with 83% neutrophil) with left-shift, and serum angiotensin was 28 IU/L, creatinine phosphokinase 48 U/L, random blood sugar 116 mg/dl and alkaline phosphatase 277 U/L. All other investigations, namely, routine urine examination, gamma glutamyl transferase, Mantoux test (Using 10 TU), Widal test, Typhi, Dot M, viral, HIV I and II, Dengue, malarial serology, antinuclear antibody were non-contributory. Abdominal Ultrasonography demonstrated heterogeneous pancreatic parenchyma.

Nerve conduction velocity of both facial nerve suggested bilateral axonal type facial neuropathy. High resolution computerized tomography of chest revealed the presence of ground-glass hazy appearance involving left lower lobe, few sub centimeter lymph nodes in the aorto-pulmonary region.

Cerebrospinal fluid was clear without any cog web coagulum. Microscopic study of CSF revealed leukocyte count 20/cc, ADA 0.4 U/L, biochemical study showed glucose 63 mg/dl, protein 20/cc.

Here ophthalmoscopic examination revealed bilateral papilledema with anterior chamber uveitis.
On the basis of bilateral facial palsy and bilateral uveitis the patient was diagnosed as neurosarcoïdosis and treated with oral steroid at the dose of 60 mg/day to start with gradual tapering at a rate of 10 mg/week initially for two weeks then 5 mg/week there after for 2 months. Similarly, steroid eye drop was given at a rate of 6 times per day with gradual tapering at a rate of 1 time per week till it was stopped 6 weeks later. This patient was completely recovered from this disease.

**DISCUSSION**

Inspite of neurological involvement, usually sarcoidosis is overlooked due to non significant or absences of findings in chest x-ray, CT scan brain and other laboratory investigations. In that case, clinical findings involving seventh and second cranial nerves in presence of fever uveitis may clue to the diagnosis of sarcoidosis.[6] Following differential diagnoses involving optic neuropathy, tuberculosis, CNS tuberculosis, CNS lymphoma, and CNS vasculitis has to be ruled out. We ruled out the all the above diagnoses by different biochemical tests radiological.

One should aware of the early clinical manifestations of sarcoidosis which will help to differentiate it from other diseases. Correct and timely diagnosis will help to start the proper treatment with steroid; so that, the morbidity of the patient will be reduced.

**REFERENCES**