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Neurosarcoidosis presenting as psychiatric Symptoms: a diagnostic challenge

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NEUROSARCOIDOSIS PRESENTING AS PSYCHIATRIC SYMPTOMS: A DIAGNOSTIC CHALLENGE

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ABSTRACT

Among patients having neurosarcoidosis, psychiatric manifestations can be seen in 20% of the patients.Sarcoidosis is extremely rare in Asia, being almost unknown in some countries like China and Southeast Asia.Neurosarcoidosis occurs in approximately 5% of patients with sarcoidosis.
Neurosarcoidosis presenting as psychiatric manifestations has rarely been reported.
We report a case of a young male who presented with psychiatric symptoms,was diagnosed with neurosarcoidosisand responded well to oral steroids.His symptoms were diffuseheadaches, and feelings of movement of fluid on top of headand certain other vague somatic complaints like body aches, vertigo etc. Such patients are difficult to diagnose as sarcoidosis is rare in our part of the world and symptoms are often nonspecific. A high index of suspicion should be kept to identify these cases. We emphasize the importance of recognizing sarcoidosis in patients presenting with variable neuropsychiatric manifestations.

KEY WORDS: Neurosarcoidosis, Sarcoidosis, headache

INTRODUCTION

Sarcoidosis is a rare inflammatory disorder of unknownetiology, and is characterized by noncaseating granulomatous lesions. Sarcoidosis may affect many systems of the body, most commonly the lungs (87%) and thoracic lymph glands (28%) are involved1.Eyes,kidneysnervous system, heart , bones, and joints may alsobe affected.1Most patients with sarcoidosis have no symptomsat all; the disease is often detected on routine chest radiographs with bilateral perihilar lymph nodes enlargement1. Symptoms, if present may include cough, shortness of breath, and arthritis. Nervous system involvement (neurosarcoidosis) is reported in 5-15% of sarcoidosis patients.[1-4]

Neurosarcoidosis is an uncommon but severe, sometimes life-threatening manifestation of sarcoidosis. Isolated neurosarcoidosis without involvement of othersystems is a rare occurence. Intracranial neurosarcoidosis is a diagnostic challenge especially in the absence of systemic signs and symptoms of the disease elsewhere and also due to its non-specific clinical presentation and neuroradiologicalfindings.[2-4]

CASE REPORT

A 26 years old male, scientific assistant by profession had history of bowel irregularities for last one year for which he was diagnosed as having Irritable bowel syndrome. Afterwards, he had numerous somatic complaints which were diagnosed as psychogenic and depression related.For the past several months he washaving multiple complaints regarding his health including headaches, generalised body aches, vertigo labelled as psychosomatic. He had feeling of constant pressure around eyes, moderate daily frontal headaches, constant buzzing in both ears, feeling of movement of fluid on top of head and vertigo on and off. His repeated neurological examinations were normal.He denied any stressor. He was started on antidepressant escitalopram 10mg OD for these symptoms and took them for 09 months without relief. Following that he had an episode of uveitis both eyes for which he receivedsteroids.His complaints persisted. For his persistent symptoms workup was done including neuroimaging, His MRI brain showedsmall subcortical and periventricular T2 high signal foci as shown in figure.

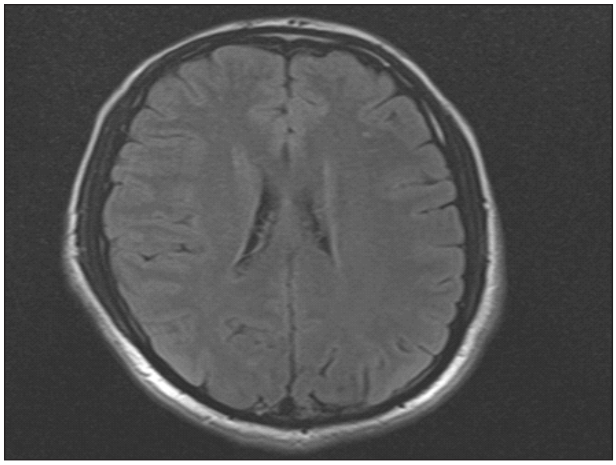

Figure. MRI brain FLAIR axial image showing tiny high signal area in left subcortical region.

His ANA was negative, ESR was found to be normal. His ENA profile was negative. Serum complement levels showed low C4 but normal C3. Serum ACE levels were found to be high i.e 131U/l(range 8-53U/l). HRCT chest showed right hilar lymphadenopathy.

On the basis of high ACE levels and neuropsychiatric symptoms diagnosis of neurosarcoidosis was made and patient was given steroidsi.e prednisolone 40mg per day which was tapered gradually to a maintenance dose of 10mg once daily on alternate day over several months.

He showed good initially recovery of his symptoms.Follow up MRI brain after 3 months showed resolution of lesions.

Hilar lymph node biopsy was offered to the patient but was refused. Later on he also developed diabetes insipidus. His urine osmolarity was found to be low i.e 272mosm/kg (range 300-900mosm/kg).Endocrinologist was consulted and was again thought to be due to hypothalamic involvement in neurosarcoidosis. He was treated conservatively for diabetes insipidus and showed good recovery.

DISCUSSION

Sarcoidosis is a multisystem granulomatous disease of unknown etiology. Sarcoidosis can be seen in patients of all ages, but most commonly affects young adults.[1]

Neurosarcoidosis develops in 5-15% of sarcoid patients, and among neurosarcoidosis patients, 20% may manifest psychiatric symptoms Psychiatric symptoms may range from mental status changes associated with delirium or dementia, to a range of psychiatric symptoms like delusions,hallucinations, euphoria, depressive personality changes, aggressiveness, apathy, and cognitive defcits.[2,4,5]

The diagnosis of neurosarcoidosis is difficult given the unusual clinical presentation of nonspecific psychiatric symptoms and headaches. A high index of suspicion is required on behalf of doctors especially general physicians/internists and psychiatrists for recognition of such atypical presentationof neurosarcoidosis.

Our case highlights that neurosarcoidosis can present with neuro-psychiatric manifestations, in addition to hypothalamic disturbances which is manifested in form of diabetes insipidus.

Neurosarcoidosis is one of the many medical illnesses that may present with psychiatric symptoms requiring a careful search for organic etiologies when medical evaluation raises clinical suspicion.In our patient no response to antidepressants, history of uveitis, low complement levels prompted us to do neuroimaging. Further finding of high ACE levels, high signal lesions on MRI brain and presence of hilar lymphadenopathy confirmed our diagnosis.

The prompt and definitive improvement of neuro-psychiatric symptoms noted in our patient with high-dose steroid therapy further supports the diagnosis of neurosarcoidosis. Such response to steroid therapy has been reported in other cases.[6]

CONCLUSION

The diagnosis of isolated neurosarcoidosis should be kept in mind in young patients with nonspecific somatic complaints and depressive symptoms especially if there is no cause/stressors for such symptoms. Keeping a high index of suspicion is crucial in reaching to the diagnosis of neurosarcoidosis.

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Farheen Niazi; data collection, data analysis, manuscript writing, manuscript review
Tariq Hussain; data collection, data analysis, manuscript writing, manuscript review