ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 16, Issue, 05, pp.28266-28267, May, 2024
DOI: https://doi.org/10.24941/ijcr.47144.05.2024

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

DELUSIONAL PSYCHOSIS IN A PATIENT OF SCRUB TYPHUS: A CASE REPORT

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ARTICLE INFO

Article History:
Received 20th February, 2024
Received in revised form
25th March, 2024
Accepted 14th April, 2024
Published online 23rd May, 2024

Key words:
Scrub Typhus, Delusion, Psychosis, Persecution.

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ABSTRACT

We present a case of 41 year old female with history and examination suggestive of acute onset behavioural changes, delusion of persecution, irritability and hostility who went into delirium and later on treatment for scrub typhus responded with complete resolution of psychotic manifestations.

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Citation: ***Gagandeep Ahuja, Shivam Sharma and Sumeesha Jaswal.*** **2024.** "Delusional psychosis in a patient of scrub typhus : a case report". *International Journal of Current Research*, 16, (05), 28266-28267.

INTRODUCTION

Scrub typhus is a tropical rickettsial infection caused by Orientia tsutsugamushi and transmitted by the bite of the mite larvae or chiggers. If left untreated or improperly treated, it can have fatal consequences.[1]The disease is known to be endemic to the geographically confined area of the Asia-Pacific region termed as the 'tsutsugamushi triangle', which covers South and Southeast Asia, Northern Australia, and the islands of the Indian and Pacific Oceans.[2] This disease is known to occur in diverse ecological settings in India with large numbers of cases being reported from Tamil Nadu, Andhra Pradesh, Karnataka, and Kerala in the South, Himachal Pradesh, Uttaranchal, Jammu, and Kashmir in the North, Meghalaya, Assam, and Nagaland in the North-East, West Bengal and Bihar in the East, and Maharashtra and Rajasthan in the West.[3] It is a systemic illness and can present as a vasculitis-like infection. After an incubation period of 6 to 21 days, symptoms of scrub typhus start suddenly and include fever, chills, headache, and generalized lymphadenopathy. An eschar at the site of chigger bite, regional lymphadenopathy, and a maculopapular rash may provide a clue to diagnosis.

In severe cases splenomegaly, myocarditis, delirium, shock and death may occur.[4] Neurological manifestations of scrub typhus include meningitis, meningoencephalitis, cranial nerve involvement, cerebellitis, cerebral venous thrombosis, transverse myelitis, myoclonus, parkinsonism, Guillain Barre syndrome and neuroleptic malignant syndrome like presentation.[4] However, the availability of literature on the psychiatric manifestations of scrub typhus is limited to case reports mainly, which includes depression[5], visual hallucinations[6], obsessive compulsive symptoms[7].

CASE HISTORY

A 41 years married female with no past or family history of psychiatric illness and well adjusted premorbid personality presented with chief complaints of reduced sleep and appetite, irritability and agitation, suspiciousness and pacing around for last 2 weeks in the psychiatry OPD. GPE and systemic examination were grossly within normal limits. On mental status examination hostility, severe psychomotor agitation, Irritable affect and delusion of persecution about other patients and attendants wanting to hurt her was noted.

A probable diagnosis of acute and transient psychotic disorder (F23 according to ICD 10)[8] was made. In view of extreme agitation, she was given 5mg of Haloperidol and 50 mg of promathezine intramuscularly. After this, patient remained unconscious and unresponsive to painful stimuli for next 2 days with stable vitals. She was assessed for her altered mental status and diagnosed with hypoactive delirium. Neuroimaging was unremarkable. On reassessment of history, she had a history of fever 15 days back without any behavioural symptoms and was afebrile for last 12 days, for which she was evaluated and diagnosed with COVID 19 but during admission her RTPCR for COVID 19 was negative. As a part of routine protocol (as Scrub typhus is endemic in monsoon in our region)[9] she was tested for Scrub Typhus and her Ig M for scrub typhus turned positive Positive. Patient was treated on Doxycycline 100mg BD and she showed improvement. She was again assessed for psychiatric symptoms, but after treatment she did not show any psychiatric symptom. Psychosis secondary to COVID 19 was also kept as possibility, but appeared less likely as patient improved after treatment and resolution of Scrub typhus infection and COVID 19 by RTPCR was also negative at time of screening.

DISCUSSION

Though, occurrence of psychiatric manifestations in scrub typhus is not a commonly reported entity in literature but from our case it can be seen that failure in diagnosing scrub typhus can led to potentially fatal consequence. Our case is of a 41 year old married female presenting with delusional psychosis and further complicated by hypoactive delirium which was due to infection with scrub typhus and completely resolved on treatment for the same. Routine screening during period of endemic in patients with atypical presentation of psychiatric illness led to early diagnosis and treatment. Pervaiz *et al* report a case of murine typhus (another rickettsial illness) infection presenting with acute psychosis as a part of delirium and mimicking DIC in an endemic area. Ours is the first case report showing delusional psychosis in a patient of Scrub typhus. Thuspatients with history of fever in endemic regions even without the presence of characteristic eschar and unremarkable neuroimaging, presenting primarily with behavioral disturbances, should undergo evaluation for Scrub Typhus. Scrub typhus should be kept as differential diagnosis especially in endemic areas as its treatment is an antibiotic course and prevents unnecessary antipsychotic exposure to the individual.

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