CASE REPORT

Pseudo-Hydrophobia : A Case Report

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ABSTRACT :

An 18 year male hosteller student with complain of nausea, vomiting and altered sensorium one week after stray dog bite (Grade 3 on 14th November, 2017,took 3 doses of Anti Rabies Vaccine (ARV) at anti-rabies clinic) was admitted at medicine unit, later shifted to Isolation ward of S.M.S. Hospital, Jaipur as a probable case of Hydrophobia (24 November 2017). All systemic examinations were normal except altered sensorium and orientation with sluggish motor activity and deep tendon reflexes. All relevant investigations were normal .Vital parameters were stable but general condition was not satisfactory which persisted for 3 days. On personal care by his parents (26 November onwards) his oral acceptance, verbal response and motor activity improved, later discharged on request (29 November)

Diagnosis of Phobic–reaction (Pseudo-hydrophobia) was made after excluding Viral Encephalo-myelitis (Rabies and other), Tetanus and Psychiatric disorders.

Though hydrophobia is a cardinal sign of human rabies but health care providers need to observe each case sincerely as cases of Pseudo-hydrophobia or Phobic reaction after animal bite are not uncommon in India. Human rabies is 100% fatal with limitation of ante mortem diagnosis a consistent keen observation of symptoms is essential to avoid misdiagnosis.

Keywords : Hydrophobia, Human-Rabies, Rapid Fluorescent Focus Inhibition Test (RFFIT), Real Time Polymerase Chain Reaction (RT-PCR), Fluorescent Antibody Test (FAT).

INTRODUCTION

Human Rabies is an acute progressive, fatal encephalomyelitis. This zoonotic disease causes an estimated 61000 human global deaths annually[1] mostly in Asia and Africa. A national multi centric epidemiological survey (2003) projected about 20000 human deaths every year due to rabies in India[2,3]. Two distinct forms of rabies-furious and paralytic(mimics Guillan-barree Syndrome) are recognised in humans. The furious or encephalitic form, which constitutes about 80% of human rabies cases, is primarily diagnosed clinically based on cardinal signs and symptoms of Hydrophobia, Aerophobia, photophobia and difficulty in swallowing even liquids, can make a clinician instantly think of Rabies. Facilities for ante mortem laboratory diagnosis of human rabies are restricted. Moreover, even in laboratories with existing facilities, rabies diagnosis poses a challenge due to lack of simple, sensitive and costeffective methods[4] . Immunological tests for rabies confirmation are done at a very few apex institute like NIMHANS, Bangalore[5-7].

It is an acceptable and recommended practice to diagnose human rabies clinically. The phobia of imminent mortality and risk of transmission of rabies infection among attendants and medical personnel often leads to their apathy and neglect of patient

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affecting management as well as diagnosis in some cases. There was such an instance at a tertiary care teaching hospital where on the basis of clinical diagnosis a neurotic patient complained of difficulty in feeding along with history of recent dog bite, was mislabelled as probable Hydrophobia (Human Rabies). Hence an effort is made to present a case of pseudo-hydrophobia so that awareness could be generated among health care providers.

CASE HISTORY :

An 18 year old male adolescent hosteller student at Jaipur (resident of Haryana) complained of nausea and vomiting (22nd November2017) following a history of grade 3rdstray dog bite (14 November 2017, 3 doses of ARV taken) took treatment from campus dispensary, and got referred to S.M.S. hospital. He was admitted in Medicine Unit (23rd November) for nausea, vomiting and altered sensorium later he got discharged against medical advice (LAMA) and reported at Fortis Hospital from there he was referred back to S.M.S. hospital for admission in Medical Unit on 24 November at 9:13 pm, later at 10:30 pm shifted to Isolation ward as probable case of Hydrophobia.

On General Physical Examination, the patient was conscious and vitals were stable (94pulses/min., temperature 38°C, BP-126/86 mm Hg). He was found to be having abnormal behaviour and disoriented to time, place and person, not taken any food since last three days. There was no muscle spasm, no convulsions, no photophobia, and no aerophobia.

SYSTEMIC Examinations were within normal limit and CNS Examination revealed, disturbed orientation and abnormal behavior with vague and irrelevant speech. Cranial Nerve and eyes were normal while on motor system examination all movements were present in all 4 limbs with sluggish power, deep tendon reflex were sluggish and bilateral Planter reflex – showed withdrawal response. Neck-rigidity was absent. No abnormality was detected on Sensory system examination.

INVESTIGATIONS : Haematological-profile, Urine Examination and Biochemical investigations were in normal range. Chest-X-ray, E.C.G. and C.S.F. Examination were also within normal limits whereas M.R.I. showed normal Brain & cervical Spine with suspected Myelitis at D7-8 (non significant) RT- PCR Tests for HSV I, II and EBV were Negative.

RABIES SPECIFIC tests (RFFIT & RT PCR) – couldn't be done due to non availability.

TREATMENT included IV Fluids, Antibiotics, Antiviral, Sedatives, Symptomatic and Supportive care.

PROGRESS OF PATIENT :

The general condition of the patient was not satisfactory at the time of admission and presenting complaints of nausea, vomiting, difficulty in feeding, altered behaviour and sensorium persisted for 3 days (23/11/17 to 25/11/17). On 26/11/17 his parents arrived from Haryana and looked after him personally and his general condition started improving. On 27/11/17 oral acceptance and verbal response of patient improved, later on 28/11/17 he was shifted to cottage ward and finally discharged (DOR) on 29/11/17.

DIFFERENTIAL DIAGNOSIS :

Included Rabies-Encephalo-myelitis, Other Viral Enchephalo-Myelitis (Guillan-barree Syndrome), Tetanus, Psychiatric disorder and Phobic-Reaction (Pseudo-hydrophobia)

RESULT :

Diagnosis of Phobic-reaction ("PSEUDO-HYDROPHOBIA'')[8,9]. was made after exclusion of viral encephalomyelitis (Rabies and others), Tetanus and psychiatric disorders.

DISCUSSION :

Age old diagnosis of Furious type of human rabies encephalitis is based on classical clinical features of Aerophobia, Hydrophobia, and unable to take feed (Pharyngeal muscle spasm) following the history of animal bite, where as Silent or Paralytic

type of human rabies is diagnosed on the basis of muscular weakness and paralysis (Quadriparesis /Hemiparesis mimicking Guillan-barree Syndrome). Routine laboratory investigations are mostly non-diagnostic (Hyponatremia May Be Present) where as C. S. F exanimation may show Moderate Lymphocytosis (5-30) and Moderate Increase in Proteins (Less than 100mg/dl).

Use of RABIES SPECIFIC IMMUNO-ASSAY for Ante-mortem diagnosis of human rabies is limited and restricted (performed only at Neuro-virology lab of NIMHANS Bangalore, WHO Collaborative centre for rabies in INDIA). RFFIT (rapid fluorescent focus inhibition test for viral RNA detection) and RT-PCR (real time reverse transcriptase polymerase chain reaction for viral RNA detection) are tests with success rate of only 25 -41%[6,7]. Samples required are of Serum, Saliva, Tears, CSF and nuchal skin tissue biopsy.

Post-mortem diagnosis of human rabies is done by FAT (Fluorescent Antibody Test for Rabies Nucleoprotein Antigen) is GOLD STANDARD test, is done by detecting Negri bodies in autopsy brain tissue sample.

CONCLUSION :

Though hydrophobia is a cardinal sign of human rabies but health care providers need to observe each case sincerely as cases of Pseudo-hydrophobia or phobic reaction after animal bite are not uncommon. Since Human rabies is 100% fatal with limitation of ante mortem diagnosis, a consistent keen observation of symptoms is essential to avoid misdiagnosis[9-10].

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