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ORIGINAL RESEARCH ARTICLE

RABIES CASE IN A YOUNG ADULT MALE FROM A VILLAGE NEAR BELLARY DISTRICT, KARNATAKA.

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Summary

A case of rabies in a 26 year old male from a village in rural Karnataka is presented here. The patient developed Rabies 4 months after exposure to a suspected rabid dog following the incomplete administration of the post exposure prophylaxis. Lack of awareness among the local treating physician on the importance of RIG and in the bite victim on completing the full course of rabies post exposure prophylaxis on time were the cause for the unfortunate death.

Introduction

Rabies is an acute encephalitis caused by Lyssavirus infection.[1] India reports 20,000 rabies deaths annualy.[2] The annual incidence of animal bite in India is 1.26%(CI: 0.93%–1.59%)and majority of the cases are from rural India of which dog is the main biting animal.[3]Rabies is a neglected zoonotic disease and continues to take the life of people in their productive years. The present case is of an adult male with irregular and incomplete medical care who died of rabies .

Key words : Rabies, Post exposure prophylaxis ,wound management

The Case

A 26 year old male residing in a Taara Nagar village, SaandurTaluk , Bellary District , Karnataka presented with the chief complaints of intermittent fever, sore throat and generalized weakness and difficulty in drinking water since one month (December 2019).

The attender (mother) gave history of unprovoked bite by a stray dog 4 months back near his house in the village. The bite was on bare skin in the left leg and bleeding was present [Category III (WHO) wound]. There was history of other people bitten by the same dog and killed presuming it to be Rabid. The wound was washed with water and lime was applied locally. The case visited a private health care provider one day after the bite and was advised anti rabies vaccination(ARV). Rabies immunoglobulin (RIG) was not advised. He had received 3 doses of ARV, there was a delay in administration of the three vaccines and no record of the route and site of vaccination is available.

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The case made multiple visits to recive the ARV due to non availability in the local and higher health care centers.

Subsequently weakness progressed and he developed difficulty in drinking water. He was suspected of rabies and referred to Bengaluru for further management on 30th December, 2019. On examination, the case was moderately built and nourished, conscious, responding to oral comments, with no signs of pallor, icterus, cyanosis, clubbing, lymphadenopathy and oedema. Vitals – Temp- Afebrile, PR – 83 bpm, BP – 110/80 mm Hg . The classical signs of Hydrophobia and Aerophobia were elicited. Other system examinations showed no abnormal findings.. Patient had occasional sudden jerky movements of entire body with shouting and aggressiveness.

A clinical diagnosis of Rabies was made based on the history and clinical features.

Supportive treatment with IV Fluids and Injection Diazepam IV (SOS) was started. The laboratory investigation done were : Haemoglobin :14.6, Total count : 10800, Differential count -N: 87.5% L: 8.2% E: 0.0% M: 4.2% B: 0.1%, Platelet count:2.92 lakh, PT-12.60,INR-1.10,APTT-25.8, Serum Urea:14.3mg/dl, Serum Creatine:0.72, Serum Uric acid : 2.2, Serum Albumin : 4.6, AST-33 ALT-20. Saliva and CSF samples were found to be positive for Rabies viral RNA through RT – PCR at the department of neurovirology ,NIMHANS.

Discussion

In the present scenario, the subject had visited the local health care provider. The treating physician did not advice RIG administration and the patient was denied appropriate treatment. At the higher centre he did not receive ARV according to the schedule due to lack of awareness and non availability of vaccine The wound management was inappropriate as it was not washed with sufficient amount of soap and water which could have killed the virus. Instead , the case had applied traditional remedies like lime which is not recommended.

A 32 year old women in Xi'an China, died of rabies after taking rabies vaccine without RIG.[4] A 67 year old patient in Iran died of rabies with history of bite in the finger ten days before admission, had taken three doses of rabies vaccine along with RIG.[5] Similarly, a 3 year old had died of rabies with a history of dog bite on the right thigh. She had taken 4 doses of vaccine and no anti- rabies serum .[6]A 6 year old boy was bitten by a stray dog on the forehead. He received a maximum dose of ERIG into the wound and rest IM into the deltoid region and four doses of rabies vaccine IM on days 0,3,7 and 14 .He still succumbed to the disease.[7] The above cases show that in spite of visiting the health care provider, the patients succumbed to rabies due to incomplete rabies post exposure prophylaxis.

83.6% of bite victims seeking post exposure prophylaxis came directly to health facility; others visited nonallopathic/ traditional healers/veterinarians/Auxiliary Nursing Midwifery before coming to health facility. The compliance rate for the full course of intramuscular rabies vaccination was 65.9% and for intra-dermal rabies vaccination, it was 85.1%. Among Category III exposures, only 46.2% received rabies immunoglobulin.[8] Confirmatory diagnosis of rabies can be made by rabies RNA virus detection in real time PCR from CSF and saliva samples.[9]

Conclusion

This case of rabies was due to lack of awareness in the subject on completing the course of post exposure prophylaxis, the treating physician in RIG and non-availability of lifesaving rabies biologicals.

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