

CASE REPORT

Rabies Kills A Child after four Long Years: A Case Report

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Abstract:

The purpose of this case study is 1) to create awareness about the varied incubation period of rabies 2) importance of proper complete and timely management of animal bite cases and 3) failure of anti-rabies vaccination.

A 12 years old male child presented to the District Headquarter Hospital, Angul with muscle weakness, involuntary movements and inability to drink water on 25th April, 2019. He was then referred to SCBMCH, Cuttack for further management. On interviewing the Child's father, he reported of a Category III dog bite to the child 4 years back for which he was treated with only anti-rabies vaccine (IDRV) at DHH. He was diagnosed as a clinical case of Human Rabies and was then treated with sedatives but the child succumbed to death within an hour of reporting at the Medical College Hospital.

Keywords:

Rabies, Category III dog bite, Long Incubation Period, Complete anti-rabies vaccination.

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Introduction:

Human rabies is endemic in India and stands out to be the tenth most common cause of death¹. It is caused by Lyssa virus and is transmitted to humans through the infected saliva of warm blooded animals. It is estimated that globally 59,000 deaths is due to dog-mediated rabies². In spite of its dreadful nature with 100% fatality, modern day vaccines and immunoglobulin makes it completely preventable. Infiltration of RIG is life saving in Category III rabies exposure. In country like India where unawareness on part of people and lack of proper complete treatment with anti-rabies vaccine and RIG takes major toll of life due to rabies, this case-report would act as an eye-opener.

Case Profile:

A 12 year old male child belonging to low socioeconomic status hailing from Angul district of Odisha presented to the OPD of Department of Pediatrics on 25th April 2019 with the chief complaints of muscle weakness, abnormal movements of body and inability to drink water for last 2 days. On in-depth interviewing the child's father, he gave

the history of the child being bitten by a stray dog on lower limb 4 years back. Status of the dog was unknown. Bleeding was present at the time of bite, hence it was a category III exposure as per the WHO categorization of animal bites as perceived from the history. His parent gave a history of incomplete vaccination for anti-rabies i.e only vaccines (Purified Vero cell Rabies Vaccine PVRV) through intradermal route was taken. Rabies immunoglobulin was neither advised nor administered due to the unavailability of the same at the DHH as mentioned by the child's father. However, no documentation was available regarding anti-rabies vaccination.

The child was apparently alright 2 days back. Initially, he complained of some muscle weakness followed by involuntary movements of body and later inability to drink water. They primarily took him to the nearby DHH, Angul without any treatment from where he was directly referred to SCBMCH, Cuttack. Patient had no history of vomiting, head trauma or fever.

Patient was attended in the OPD as he arrived at nearly 12.30 pm and on general examination, the child had altered sensorium and looked sick. Airways were patent, vitals stable and he was afebrile. On blowing air with the help of a paper near the face of the child, he developed facial muscle spasms. The patient was diagnosed as a typical case of Clinical Human Rabies following Category III dog bite. He was treated conservatively with i.v fluids and benzodiazepines for sedation and was advised to get admitted in the infectious disease ward of Department of Pediatrics, SCBMCH but due to sudden deterioration in his health condition the child started gasping and at about 1.30 pm he succumbed to death due to rabies after 4 years of being bitten by a stray dog.

Discussion:

In our study, the patient was a male child of 12 years of age which is a vulnerable age group for being bitten by animals as supported by other studies such as one by Satpathy DM et al¹ at Berhampur found 62.5% of rabies cases attending the ARC were under 15 years of age. Rabies cases are generally more prevalent in males mainly due to their outdoor activities as also seen in our case². The children being more playful and less defensive are more vulnerable for such bites. A similar study by Behera T R et al³ found 30 cases (81%) of rabies only from bites of stray dog. In a national multicenter survey for assessing the rabies burden in India⁴ in which SCBMCH was a part, found that the dogs (96.2%) who were stray (75.2%) were mainly responsible for human rabies deaths similar to our case who was bitten by a stray dog. The child belonged to low socioeconomic status from rural area which is another risk factor for animal bites as found by other studies which report rabies to be more prevalent among rural people⁵. The child presented with muscle weakness, involuntary movements and hydrophobia and on blowing air over face he developed facial spasms which was similar to the case reported by Pattanaik N et al⁶ where the child had marked aerophobia and hydrophobia along with low grade fever and cough.

Mohanty M et al⁷ reported a lady died of rabies after 20 days (short incubation period) of bite by a suspected rabid dog and Pattanaik N et al⁶ reported a child of 2.5 years to die due to rabies after 45 days of exposure (short incubation period) which were in contrast to our case where the child succumbed to death due to animal bite nearly after 4 long years (long incubation period). Parent gave a history of incomplete vaccination i.e administration of only PVRV through intradermal route without RIG at DHH, Angul. Similar case history was also reported by Mohanty M et al⁷ where the lady was only provided with IDR. The most worth noting history is the long incubation period of 4 years which calls for an aggressive treatment of even a minor injury by animal as well as complete treatment as per the guidelines i.e proper washing of wound and administration of PVRV and/or ERIG as the case may be.

Conclusion

Stray dogs are the main biting animals and children are more vulnerable to animal bites. Unawareness on part of health care providers at PHC and CHC's of the district regarding the importance of complete vaccination for anti-

rabies is a major drawback in prevention and elimination of rabies. Hence, utmost care must be taken of children who are at risk of animal bites. Complete vaccination and awareness regarding rabies will certainly help to curtail the burden of rabies. Regular training and re-orientation of medical officers and paramedical staffs regarding animal bite management with ARV and RIG is the need of the hour to prevent the dreadful disease rabies and take a step towards attending the goal of “ Dog-mediated Human Rabies free India by 2030”.

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