BRIEF REPORT

Himachal Implements New WHO Guidelines 2018

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A meeting was held on 22nd May, 2019 under the chairmanship of eminent WHO expert on rabies, Dr. M.K. Sudarshan in Shimla Himachal Pradesh to revise the 2nd edition of manual on "GUIDELINES FOR RABIES PROPHYLAXIS AND INTRADERMAL RABIES VACCINATION IN HIMACHAL PRADESH, 2019". The meeting was attended by 10 experts from medical colleges and the Directorate of Health Services, Himachal Pradesh.

The expert unanimously decided to implement almost all recommendations of WHO TRS 1012, except for Post Exposure Prophylaxis (PEP) that needs to be continued as the updated "Thai Red Cross (TRC)" regimen of 2-2-2-0-2 pending national multicentric study to be conducted to test the efficacy of new WHO recommended one week regimen using Indian vaccines.

The new schedules of 2 site pre – exposure prophylaxis on days 0-7 and one time booster of 4 site 0.1 ml and local wound infiltration of equine rabies Immunoglobulins (eRIG) were recommended as "Off Label" use. Any vaccine for IM use can be used for ID purpose, "Off Label".

No vaccine is to be recommended for ingestion of raw milk of a rabid cow was unanimous recommendation. It was also decided to give rabies PEP in case of bites by monkeys, pups of any age and squirrel keeping in view of local rabies epidemiology in Himachal Pradesh. In HP, human rabies has been reported even following category II exposures of scratches (without bleeding) by dogs. Hence, in such cases after wound wash, both vaccine and RIG are indicated. The RIG is used only to infiltrate the affected area/scratch of the skin. Scratches would be identified by doing "Spirit Test". In minor scratches on the skin (without bleeding), it is difficult to know whether the skin i.e. Superficial layer of dermis is breached and nerve endings are open for infection by the rabies virus present in the saliva of the rabid animal. In such cases application of spirit to the affected spot will cause burning sensation and confirm that the skin is breached/ dermis is broken exposing free nerve endings and leading to a possibility of rabies infection and in such cases complete PEP is given including RIG administration.

Fig1: Infiltration of scratch:



In cases of re-exposure it was decided that, If an individual has a repeat exposure less than three months after a previous exposure, and has already received a complete PEP or pre-exposure vaccination (PrEP), then only wound treatment is required; neither vaccine nor RIG is needed. For repeat exposures occurring more than three months after the last PEP or PrEP , the PEP consists of only one dose of vaccine (0.1mL by ID route) given on day 0 and 3 would suffice. RIG is not needed.

For pre exposure vaccination it was decided that, Pre-exposure vaccination may be offered to at risk groups like laboratory staff handling the rabies virus and infective material, clinicians and persons attending to human rabies cases, veterinarians, animal handlers and catchers, wild life wardens, quarantine officers and travellers from rabies free areas to rabies endemic areas. The regimen is one dose of 0.1mL vaccine given by ID route on days 0, 7 and 21 or 28. The recent WHO, 2018, recommendation is giving 0.1mL vaccine on both deltoids by ID route on days 0 & 7 only. But using this new regimen will constitute an "off label" practice. PrEP induces circulating memory cells for life time and further booster doses are indicated in high risk groups based on expert advice and monitoring their periodic anti-rabies antibody titre levels. However, PrEP shall be offered only with prior approval of the authorities as the rabies vaccine is supplied in the government institutions to provide life saving PEP in rabies exposed individuals.

References:

- 1. Bharti OK, Madhusudana SN, Gaunta PL, Belludi AY. Local infiltration of rabies immunoglobulins without systemic intramuscular administration: an alternative cost effective approach for passive immunization against rabies. Hum Vaccin Immunother. 2016; 12(3):837–42. https://www.ncbi.nlm.nih.gov/pubmed/26317441
- Bharti et. al; Exploring the Feasibility of a New Low Cost Intra-Dermal Pre & Post Exposure Rabies Prophylaxis Protocol in Domestic Bovine in Jawali Veterinary Hospital, District Kangra, Himachal Pradesh, India; WJV Vol 8 (1); 10.4236/wjv.2018.81002; https://www.scirp.org/journal/PaperInformation.aspx?PaperID=82278
- 3. Bharti et.al; Human rabies in monkey (Macaca mulatta) bite patients a reality in India now!; Journal of Travel Medicine, Volume 23, Issue 4; https://doi.org/10.1093/jtm/taw028; https://academic.oup.com/jtm/article/23/4/taw028/2748109
- 4. Kumari, P.L., Monahan, K.R., Kailas, L. et al; A Case of Rabies after Squirrel Bite; Indian J Pediatr (2014) 81: 198. https://doi.org/10.1007/s12098-013-0990-2; https://www.ncbi.nlm.nih.gov/pubmed/23436194
- Bharti OK, Chand R, Chauhan A, Rao R, Sharma H, Phull A. "Scratches/Abrasions without bleeding" cause rabies: A 7 years rabies death review from medical college Shimla, Himachal Pradesh, India.Indian J Community Med 2017;42:248-9. https://www.ncbi.nlm.nih.gov/pubmed/?term=10.4103%2Fijcm.IJCM_37_17
- 6. Bharti et. al; Breaking the Barriers to Access a Low Cost Intra-Dermal Rabies Vaccine through Innovative "Pooling Strategy"; World Journal of Vaccines, 2012, 2, 121-124; doi:10.4236/wjv.2012.23016; https://file. scirp.org/Html/2-5100051_21524.htm