

Title: Guest Editor Article

Author: Dr. Umesh Kumar Bharti

State Epidemiologist, State Institute of Health and Family Welfare Parimahal,
Kasumpti, Shimla, Himachal Pradesh

Keywords

Abstract

Rabies is known to mankind for more than 4000 years, one of the oldest known zoonosis without any definite cure till date. Many efforts to find a cure for rabies have failed and people suffer since centuries without a cure in sight. A recent study titled **"A combination of two human monoclonal antibodies cures symptomatic rabies"** in mice is a flicker of hope towards a cure for rabies and requires more intense efforts to find a cure for human rabies as early as possible as more than 59,000 human lives are lost annually due to rabies worldwide. The study reports that a combination of two potent neutralizing human monoclonal antibodies directed against the viral envelope glycoprotein cures symptomatic rabies in mice. The treatment involved concomitant administration of monoclonal rabies antibodies in the periphery at the site of infection by local injection/ infiltration and in the central nervous system through intra cerebroventricular infusion. After such treatment, recovered mice presented in good clinical condition, viral loads were undetectable, and the brain inflammatory profile was almost normal. These findings provide the unprecedented proof of concept of an **antibody-based therapeutic approach for symptomatic rabies**. This antibody based therapeutic approach for symptomatic rabies need extensive evaluation in animal models and later in Human beings. To achieve this, rabies diagnostic labs and clinics need to collaborate to refine the approach so that effective cure for rabies can be a real possibility. We must learn from previous failures to cure rabies and strive for simpler ways to cure it. Earlier in 2004 an unvaccinated patient survived with novel therapy named as the "Milwaukee Protocol" that was later advocated for the cure of rabies in human beings but was generally discarded over time due to its unproven effectiveness. While efforts to cure symptomatic rabies should continue, our efforts towards mass vaccination of dogs in innovative ways should not lose focus. Also timely and free availability of post dog/ animal bite vaccination as post exposure prophylaxis, made accessible to all, is required so as to prevent human rabies deaths. The objective to end human deaths from dog-mediated rabies by 2030 cannot be achieved until we don't bring ONE HEALTH approach into action collaborating with human, animal and environmental sectors. Recently launched "National Action Plan for Elimination of Dog Mediated Rabies in India by 2030" (NAPRE) is the right step towards achieving this objective by adopting One Health approach and to have rabies free India by 2030.