Rabies Vaccination in Travelers: A Global Perspective

To the Editor-in-Chief:

The issue of confirmed rabies cases in travelers over the last decades has been recently addressed during the last ISTM congress in Boston and in two recent reviews that were simultaneously published in the Journal of Travel Medicine and in Vaccine. Besides documented rabies cases, the risk of exposure to rabies is an important factor among others to consider for the individual risk assessment leading to the decision to vaccinate before traveling. The real risk of exposure to rabies is impossible to assess. However, an approximation can be made by considering the incidence of animal bites in travelers and/or the incidence of post-exposure prophylaxes (PEP) given to travelers. Analysis of available, recently published studies including >1,270,000 individuals shows that overall 0.4% (range 0.01–2.3%) of travelers will experience an animal bite requiring PEP per month of stay in a rabies-endemic country. Our approximation corroborates that of Robert Steffen, who estimates the incidence per month of animal bites carrying a risk of rabies transmission during a stay in a developing country to be between 0.1 and 1% which is more than that of hepatitis A or typhoid fever in endemic areas. The risk of a potential shortage of rabies immunoglobulin because of an unplanned increase in demand or because of limited supply is shared by many countries in Europe and other continents. The demand for rabies biologics for humans living in endemic countries will most likely be high in the future because of discontinuous efforts to control the virus in dog populations in developing countries. Local people living in rabies-endemic countries must already address a restricted supply of vaccine. Unvaccinated Western travelers who are unaware of the risk of rabies regularly engage in contact with animals during their trips, resulting in expensive PEP including rabies immune globulin. To decrease the number of rabies PEP following animal bites, it is crucial that travelers to endemic countries should be fully informed of this specific risk which can be easily minimized by avoiding contact with animals. The use of the economical intra-dermal route for travelers in need of pre-travel vaccination should be generalized to avoid wasting this vaccine. It has proven to be safe and effective, including in travelers. Additionally, the long-lasting immunity provided by vaccination should be considered an investment for future travel. Rabies vaccination has always been a sensitive question among the travel medicine specialists with controversies between ‘rabies gurus’ that may result in much confusion among travel health care providers facing rabies prevention daily as reflected by the number of occurrences of such discussions in the ISTM forum. Confrontation of travel medicine specialists interested in rabies prevention with other practitioners involved in the fight against rabies in endemic areas could be beneficial to address the issue of vaccination globally rather than from the travel medicine specialist perspective only.

Philippé Parola and Philippé Gautret
Institut Hospitalo-Universitaire en Maladies Infectieuses et Tropicales, Hôpital Nord, AP-HM, Marseille, France

References