

RABIES – A RECURRENT DANGER TO EUROPEAN COUNTRIES FROM DOGS INTRODUCED FROM ENDEMIC COUNTRIES

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Although vaccine-preventable, rabies remains a worldwide-occurring disease of major public health concern. Globally, rabies is responsible for about 55,000 human deaths per year, mainly in Asia and Africa, and 30-50% of the cases are in children, most often following an infection transmitted through the bite of a rabid dog [1]. Annually, around 10 million people receive treatment after exposure to animals in which rabies is suspected. However, in the absence of such treatment, the disease is fatal.

Although the incidence in humans is very low in Europe, several rapid communications in Eurosurveillance in recent years have documented the tragic outcomes following dog bites in travellers returning from countries with urban rabies [2,3,4,5,6,7]. For example, in 2003 a three-year-old who had probably been infected when playing with unvaccinated dogs during a visit to Gabon died in France [2]. In 2004, a young Austrian tourist died after being bitten by a dog in Morocco [6], and a young German woman died after a bite from a dog in India. In 2005, a British man died who had been bitten by a dog while on holiday in Goa, India [5]. In 2007, a German national died on his return to Germany after being bitten by a stray dog in Morocco which had been fighting the man's own dog [7]. All the deceased had not been vaccinated.

In addition, the regions of Europe that are considered 'rabies-free' according to the the World Organisation for Animal Health (OIE) criteria still face a risk of illegal introductions of potentially infected domestic animals, primarily pet animals. This illustrates the need for continued vigilance and strict compliance with European Union (EU) control measures [8]. For example, in February a dog that had never left the country was diagnosed with rabies in France. The investigations of the case revealed that the likely source of the infection was a dog that contracted rabies from another dog that had been illegally introduced from Morocco in late 2007 [9]. In this and last week's issue, two timely communications by V Vaillant et al and M Catchpole et al on recent illegal introductions of rabies-infected dogs into EU Member States point out the danger and highlight challenges associated with the illegal introduction of dogs from rabies-endemic countries. In the recent case of a dog introduced from Gambia to France via Belgium [10], the requirements for the introduction of pet animals from countries not listed in the Annexes to Regulation (EC) No 998/2003 of the Council and the European Parliament [8] were not complied with by the owner of the dog. Although the dog was certified as primo-vaccinated before entry into Belgium, it had neither undergone the required antibody titration test demonstrating a protective immunity, nor the mandatory three-

month waiting period before movement to exclude any possible pre-vaccination exposure to the virus.

As a result, this required complicated investigations by the relevant public and animal health authorities in France and Belgium, leading to substantial public expenditure and post-exposure vaccination in France and Belgium alone.

The picture is completely different in the case of a dog that died in a quarantine facility in the United Kingdom [11]. This dog was legally introduced from a non-listed third country in accordance with the transitional measures laid down in Regulation (EC) No 998/2003 and consequently placed in quarantine. However, even in this case three individuals connected to the quarantine were bitten and required post-exposure treatment.

These examples show that, in the case of rabies, continuous vigilance is needed in order to ensure that animals entering the EU are properly vaccinated, and where required by legislation, tested for their immune response. Furthermore, all those intending to introduce dogs, cats or ferrets into the EU need to know that such animals might be infected with rabies and should not be imported unless full prevention and control measures have been carried out [8].

In addition, travellers to endemic countries should be aware of the danger of contracting rabies and be advised to take precautionary measures, such as avoiding contact with mammalian animals, and furthermore be informed about the possibility of pre- and postexposure vaccination.

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