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Report for 1998

In 1998 a total of 87 persons were treated prophylactically against rabies after animal bites. 48 of these were treated or had treatment completed after exposure abroad.

Table 1. No. of persons treated prophylactically after rabies exposure, 1998, by geographical region

Region	Number
Denmark	39
Greenland	3
Rest of Europe	10
Asia	29
America	2
Africa	4
Total	87

Table 1 shows the geographical regions in which possible rabies exposure took place. 19 persons were bitten by animals in Thailand, seven in Turkey and seven in India.

Table 2. No. of persons treated prophylactically after rabies exposure, 1998, by type of animal

Species	Denmark	Abroad
Dog	1	35
Bat	18	1
Monkey	-	7
Fox	-	3
Cat	-	2
Marten	1	-
Mouse	1	-
Squirrel	1	-
Cow	4	-
Sheep	13	-
Total	39	48

Table 2 shows the types of animal giving rise to exposure. In Denmark, bat bites were the most frequent grounds for treatment, while dog bites were the most frequent abroad. For six of the 39 persons exposed in Denmark, treatment was stopped when the animals were subsequently found negative for rabies virus. This applied to a marten, a mouse, a dog, a squirrel and two bats. In 1998 three sheep were found positive for rabies virus by immunofluorescence. As a result, a total of eight persons were treated, EPI-NEWS 22/99. In addition, a cow and sheep were destroyed because of strange behaviour, but were not subsequently examined for rabies virus. Nine persons were treated prophylactically in relation to these animals. The WHO has reported that a total of 6246 rabid animals were diagnosed in

RABIES PROPHYLAXIS

Europe in 1998. 54% of these were foxes, the remainder being dogs, cattle, cats and other animals. Most cases have been reported from Russia, followed by Poland, Hungary, Croatia, Lithuania and Latvia. In addition, four human cases of rabies were reported in Russia.

Rabies prophylaxis

It has hitherto been recommended to give six doses of rabies vaccine to all persons who have been exposed to rabies virus. It has been shown, however, that the antibody levels obtained after five doses are sufficient to neutralize the so-called classical strain of rabies virus (EPI-NEWS 22/99).

Doses after exposure, except exposure

from bats: A total of five doses are given, on day 0, 3, 7, 14 and 28. Rabies immunoglobulin (RIG) 20 IU/kg is given at the same time as the first dose of vaccine. The vaccine and the RIG are injected intramuscularly at separate sites on opposite sides of the body. If possible, the RIG is infiltrated in and around the wound, and any remainder is given intramuscularly. If no immunoglobulin has been given on the first occasion, this should still be given if less than eight days have elapsed since the first vaccination.

Doses after exposure from bats: The types of rabies virus found in Danish bats require higher antibody levels for their neutralization. Persons bitten by bats in Denmark should therefore still be given six doses of vaccine, on day 0, 3, 7, 14, 28 and 90. Simultaneous injection of immunoglobulin is performed as above.

Previously vaccinated persons: Those who have had primary vaccination (three doses, day 0, 7 and 28) within the last five years and have been exposed to rabies should be given two doses of vaccine, on day 0 and 3.

Those who have had primary vaccination more than five years previously or have been incompletely vaccinated are regarded as unvaccinated. To ensure continuing protection, other regimens, including antibody determinations, may be considered. If a person is bitten by a bat in Denmark, the animal should be caught, if possible, and submitted to examination for rabies virus. If rabies virus is found, or if the bat has not been caught, prophylactic treatment should be given. In case of bites from other animals in which there is a justified suspicion of

rabies, the District Veterinary Officer should be contacted and the animal sent for examination, if possible (EPI-NEWS 41/98). Any prophylactic treatment after exposure should be discussed with the Department of Epidemiology, from which vaccine and immunoglobulin can also be requested. (Annette Hartvig Christiansen, Tove Rønne, Dept. of Epidemiology)

MMR VACCINATION OF CHILDREN WITH EGG ALLERGY

Danish recommendations have hitherto been that children known to be allergic to eggs should be MMR vaccinated in paediatric outpatients after a prick test with the vaccine, EPI-NEWS 21/97. However, several international studies have shown that prick testing with the vaccine does not reliably predict type-1 reactions after MMR vaccination of children with known egg allergy. It has also been shown that many children with known egg allergy can be MMR vaccinated without provoking allergic reactions. A Danish survey of notified cases of type-1 reactions after MMR vaccination over a 10-year period showed that eight children reacted with a type-1 reaction within 24 hours of MMR vaccination. Only one of these children had confirmed egg allergy, and this child reacted with hay fever and asthma 15 minutes after vaccination. None of the children reacted with anaphylactic shock. International investigations and our own studies thus suggest that prick testing with the vaccine has little predictive value. The Danish recommendations have therefore been changed such that children with known egg allergy should henceforth be vaccinated in paediatric outpatients without prior prick testing. Parents should still be asked whether the child is allergic to eggs before MMR vaccination. (Majbritt Christensen, Annette Hartvig Christiansen, Tove Rønne, Dept. of Epidemiology).

NEW STAFF MEMBER

Jeanne Duus Johansen has been appointed Registrar in the Department of Epidemiology from 1 September 1999.

RABIES PROPHYLAXIS

No. 35, 1999

Viral infections diagnosed in the Dept. of Virology, 1999

		March	April	May
Respiratory viruses	Adeno	6	-	7
	Influenza A	100	11	11
	Influenza B	6	6	4
	Parainfluenza	-	-	-
	RSV	7	2	-
Enteroviruses	Polio, Coxsackie A, Coxsackie B, Echo	4 ¹⁾	3	12 ²⁾
	Viruses of "childhood illnesses"	-	-	-
"childhood illnesses"	Morbilli	-	-	-
	Parotitis	5	1	-
	Rubella	-	-	-
	Parvovirus B19	41	43	32
Herpes viruses	Herpes simplex	4	2	1
	Varicella-zoster	1	1	-
	CMV	-	-	-
	Epstein Barr	103	71	86
	Herpes virus 6	5	1	2
Gastroenteritis viruses	Rota	45 ³⁾	36	22 ⁴⁾
	Adeno	1	4	2 ⁵⁾
	Norwalk-like viruses	19	11	11
Hepatitis viruses	Hepatitis A	3	1	1
	Hepatitis B	5	1	2
	Hepatitis C	-	-	-
	Hepatitis E	-	-	-

(Dept. of Virology)

¹⁾ Of these 2 from children < 1 year and
1 from a child between 1 and 4 years
1 positive from CSF (child < 1 month)

²⁾ Of these 9 from children < 3 years,
of these 4 < 6 months

³⁾ Incl. 2 patients from the Faroes

⁴⁾ Incl. 1 patient from the Faroes

⁵⁾ Incl. 1 patient from the Faroes