

LONG INCUBATION FOR RABIES

Recent case reports from the US and Sydney show that rabies may occasionally have a very long incubation period (2-19 years after exposure). Therefore, it may occur in immigrants from endemic areas such as South East Asia years after immigration and should be considered in the differential diagnosis of encephalitis in these patients.

Rabies is usually fatal (three known survivors had vaccine). There is no effective therapy and diagnosis is usually established postmortem. Antemortem diagnosis is important to prevent unnecessary investigations and treatment and also possible nosocomial transmission.

It is not generally known that the most rapid way to diagnose rabies antemortem is to examine a skin biopsy from the nape of the neck for rabies antigens by immunofluorescence and process saliva for virus isolation in neuroblastoma cells (or mice).

In the immunofluorescence test, a full-thickness, 0.5cm diameter skin biopsy is taken from just above the hairline, avoiding excessive infiltration of the specimen with local anaesthetic. It should be frozen at -70°C while awaiting transport for testing. Sensitivities and specifications of the saliva and skin tests are as follows.

	Sensitivity	Specificity
Virus isolation from saliva	35-55% (decreasing with duration of illness)	100%
Rabies antigen in skin biopsy	50-94% (increase with duration)	100%

In patients who have not been immunised, serum antibody detection may also be useful in the second week after onset of symptoms. Brain biopsy from the cortex is not usually helpful.

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TABLE 1

INFECTIOUS DISEASE NOTIFICATIONS, NSW To end of April, 1991

CONDITION	Number of Cases Notified			
	Period		Cumulative	
	April 1990	April 1991	April 1990	April 1991
Acute viral hepatitis	39	18	119	265
AIDS	24	-	124	±52
Arboviral infection (NOS)	28	17	64	100
Brucellosis	-	-	2	-
Cholera	1	-	1	-
Diphtheria	-	-	-	-
Foodborne illness	N/A	38	N/A	93
Gastroenteritis	N/A	-	N/A	12
Gonorrhoea	30	5	115	55
Haemophilus influenza inf.	N/A	4	N/A	8
HIV	N/A	-	±448	±216
Hydatid disease	-	-	-	-
Legionnaires' disease	-	-	10	8
Leprosy	1	-	1	-
Leptospirosis	1	-	13	12
Listeriosis	-	-	-	-
Malaria	18	-	53	6
Measles	3	3	10	47
Meningococcal infection	4	1	11	14
Mumps	N/A	-	N/A	1
Mycobacterial infection (NOS)	22	1	124	21
Pertussis	15	1	83	11
Plague	-	-	-	-
Poliomyelitis	-	-	-	-
Q fever	17	2	44	22
Rubella	N/A	-	-	2
Salmonella infection	159	8	494	399
Syphilis	24	8	70	130
Tetanus	-	-	-	-
Typhoid & paratyphoid	1	1	9	30
Typhus	-	-	-	-
Viral haemorrhagic fever	-	-	-	-
Yellow fever	-	-	-	-

± Data January-March only

Continued on page 47 ▶