EPI-NEWS
NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

Editor: Susanne Samuelsson
Dept. of Epidemiology
Statens Serum Institut • 5 Artillerivej • DK 2300 Copenhagen S
Tel.: +45 3268 3268 • Fax: +45 3268 3874
www.ssi.dk • epinews@ssi.dk • ISSN: 1396-4798

CREUTZFELDT-JAKOB DISEASE 2002-2003

No. 26-33, 2004

Creutzfeldt-Jakob disease (CJD) is divided into three types: sporadic, inherited and iatrogenically acquired. In addition, variant CJD (vCJD) was described in 1995, and is considered to be the human form of mad cow disease (bovine spongiform encephalopathy, BSE), EPI-NEWS 12/01. In Denmark, CJD has been notifiable since May 1997, EPI-NEWS 10/97.
The statistics are based on the patients' years of death. In the period 1997-2003, notification has been made of a total of 27 certain, 16 probable and two possible cases, all classified as sporadic. Table 1 shows the number of patients for whom notification of suspected CJD was made, who died in 2002 and 2003, respectively: eight women and seven men. The median age was 70 years (48-77).

Table 1. Creutzfeldt-Jakob disease, number of notified cases, 2002-2003

Deceased in	2002	2003
Certain cases	6	2
Probable cases	1	5
Possible cases	0	1
Total	7	8

Variant Creutzfeldt-Jakob disease

There are no known cases of vCJD in Denmark.
In the UK, where by far the greatest number of cases of vCJD have been diagnosed, there have been reports of a total of 147 patients with certain or probable vCJD. The annual number of notified cases of vCJD peaked in 2000 and has subsequently been declining. In addition, in the UK the prion protein that is associated with vCJD has been found on histology in three out of 12, 675 tonsils removed by ordinary tonsillectomy. Investigations must now confirm or reject this surprisingly high prevalence.
Whether this finding may be of significance for the future incidence of vCJD is as yet unknown.
In 2003, one patient in the UK was diagnosed with vCJD, where the source of infection is suspected to be a transfusion given in 1996, vCJD being confirmed in the donor in 1999. Also in the UK, vCJD has been confirmed on post-mortem in one patient who received blood from a donor who later developed vCJD. The patient died of non-neurological disease.

Comments

CJD was made notifiable in order to enhance the epidemiological surveillance of both CJD and vCJD. The number of notified cases of CJD has been between four and 11 cases per annum, and has thus been quite steady. As the incubation period for vCJD is several years, it is not yet known whether cases of vCJD will be diagnosed in Denmark in future.
(S. Cowan, Department of Epidemiology)

BSE IN CATTLE

The programme for surveillance of bovine spongiform encephalopathy (BSE) in Denmark includes both passive and active surveillance.
In passive surveillance, which has been in place since 1990, notification must be made of animals with clinical symptoms of BSE.
In active surveillance, which commenced on 1 January, 2001, brain tissue samples are examined from all dead or slaughtered cattle over a certain age. Some of these are risk animals and some are normal slaughter cattle. Risk animals include spontaneously dead and urgently slaughtered cattle $\geq$ 24 months, where the relative risk of finding BSE is greater than in the normal cattle population. All normal slaughter cattle $\geq$ 30 months must be examined when they are slaughtered. The test result must be negative before the carcase can be released for consumption.

Incidence

Since the active surveillance was implemented, approximately one million cattle have been tested, table 2.

Table 2. Number of BSE investigations in cattle in Denmark, 2001-2004[1)]

Category	Total	Positive	(per 10^6)
Clinic	150	2	(13.333)
Risk animals	123.685	5	(40)
Slaugther anim	856.974	5	(6)
Total	980.809	12[2)]	(12)

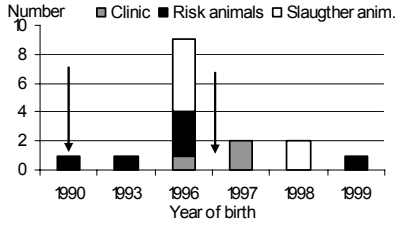
1): Up to and including May 2004
2): To this must be added the first cases from 2000 and three cases in exported animals

In February 2000, the first case of BSE in Danish-born cattle in Denmark was diagnosed. This was before active surveillance commenced. So far, a total of 132 cases of BSE have been found in Danish-born cattle in Denmark, and in addition, three cases in exported cattle. The latest case of BSE was diagnosed in April 2004. Of this total of 16 cases, which are presumed to have been infected in Denmark, three were investigated on clinical suspicion, six were risk animals and seven were slaughter cattle.

Prophylaxis

Attempts have been made to regulate the spread of infection through fodder containing infectious material from meat and bone meal (MBM) with a series of bans on foodstuffs; in 1990 against cattle-based MBM in cattle fodder, in 1997 against mammal-based MBM in cattle fodder and in 2001 against animal protein in fodder for all production animals.
These bans are the only prophylactic measure that can be expected to lead to the eradication of the disease.
The cattle are usually infected during their first year of life. Thus, the distribution of BSE according to the year of birth of the animals can give an impression of the spread of infection and thus of the effect of the bans on foodstuffs. Figure 1 shows that most cases, a total of nine, were born in 1996, which means that the first foodstuff ban from 1990 has not been particularly effective. In contrast, the ban of 1997 is thought to have limited the spread of infection significantly. It is as yet too early to expect to find animals that may have been infected after the ban of 2001.

Fig. 1. Number of BSE cases by year of birth (including exported cases)



The arrows show the points of introduction of bans on meat and bone meal.

Comments

In the European Union, the number of cases of BSE has declined by 36% from 2002 to 2003. In Denmark, few cases are expected in the next few years, after which the disease is expected to die out completely in this country.
(P. Willeberg, Danish Veterinary and Food Administration)

NEW BACK PAGE

EPI-NEWS has got a new back page. Isolates, specimens and notifications received with laboratory-confirmed infection, as well as notifications of all individually notifiable diseases, are now calculated each week. In addition, statistics focusing on selected infections or outbreaks will be published every week.
(C. Kjelsø, Dept. of Epidemiology)

11 August 2004

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, Statens Serum Institut.
The figures for 2004 are preliminary

	Week 32 2004	Cum. 2004 [1]	Cum. 2003 [1]
AIDS	0	24	19
Anthrax	0	0	0
Botulism	0	0	1
Cholera	0	0	0
Creutzfeldt-Jakob	2	6	5
Dipththeria	0	0	0
Food-borne diseases	16	325	239
of these, infected abroad	5	41	51
Gonorrhoea	2	207	85
Haemorrhagic fever	0	0	0
Hepatitis A	8	110	38
of these, infected abroad	3	22	10
Hepatitis B (acute)	1	20	31
Hepatitis B (chronic)	0	104	120
Hepatitis C (acute)	0	1	5
Hepatitis C (chronic)	5	173	165
HIV	6	182	134
Legionella pneumonia	2	48	48
of these, infected abroad	0	9	10
Leprosy	0	0	0
Leptospirosis	0	1	2
Measles	0	0	0
Meningococcal disease	5	83	73
of these, group B	0	32	39
of these, group C	0	6	17
of these, unspec. + other	5	45	17
Mumps	0	3	2
Neuroborreliosis	4	40	15
Ornithosis	0	3	6
Pertussis (children < 2 years)	5	108	77
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	1	2
Listeria monocytogenes	0	1	1
Streptococcus pneumoniae	1	58	75
Other aethiology	0	3	2
Unknown aethiology	1	10	11
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	0	44	58
of these, infected abroad	0	35	50
Syphilis	0	90	33
Tetanus	0	0	0
Tuberculosis	11	277	257
Typhoid/paratyphoid fever	1	16	28
of these, infected abroad	1	11	16
Typhus	0	0	0
VTEC/HUS	2	83	54
of these, infected abroad	0	9	12

[1] *Cumulative number of cases notified in 2004 and in the corresponding period of 2003*

Selected laboratory-diagnosed infections

Number of specimens, isolates, notifications received at Statens Serum Institut

	Week 32 2004	Cum. 2004 [2]	Cum. 2003 [2]
Bordetella pertussis (all ages)	Presented from week 35		
Gonococci	13	229	157
of these, females	1	29	21
of these, males	12	200	136
Listeria monocytogenes	0	23	18
Mycoplasma pneumoniae			
Resp. specimens [3]	3	96	109
Serum specimens [4]	2	219	327
Streptococci [6]	Presented from week 35		
Group A streptococci			
Group C streptococci			
Group G streptococci			
S. pneumoniae			
	Week 31 2004	Cum. 2004 [2]	Cum. 2003 [2]
Pathogenic int. bacteria [5]			
Campylobacter	91	1886	1670
S. Enteritidis	29	271	363
S. Typhimurium	13	241	199
Other zoon. salmonella	9	261	286
Yersinia enterocolitica	2	117	132

[2] *Cumulative number of isolates/specimens in 2004 and in the corresponding period of 2003*

[3] *Resp. specimens with positive PCR*

[4] *Serum specimens with pos. complement fixation test*

[5] *Se also www.germ.dk*

[6] *Isolated in blood or spinal fluid*

Patients with laboratory-diagnosed chlamydia, by county and gender, 1st quarter of 2004

	2004			2003
County	M	F	Total	Total
Cph. + Frb. Municip.	380	597	981 *)	973
Copenhagen	217	345	563 *)	432
Frederiksberg	84	161	245	224
Roskilde	45	94	139	143
West Zealand	65	158	223	133
Storstrøm	54	117	171	139
Bornholm	2	21	23	27
Funen	123	298	421	395
South Jutland	73	182	255	178
Ribe	65	168	233	146
Vejle	92	190	282	244
Ringkøbing	80	139	220 *)	206
Aarhus	250	398	648	529
Viborg	66	130	196	162
North Jutland	144	268	412	434
Whole country	1740	3266	5012	4365

*) *For a few persons the gender is unknown*

11 August 2004