



HEPATITIS A OUTBREAK

From August 2010 to January 2011, the Medical Officers of Health of Copenhagen and Statens Serum Institut recorded nine cases of hepatitis A virus (HAV) infection in the town of Farum. All cases occurred in persons who were living in a limited, well-defined area.

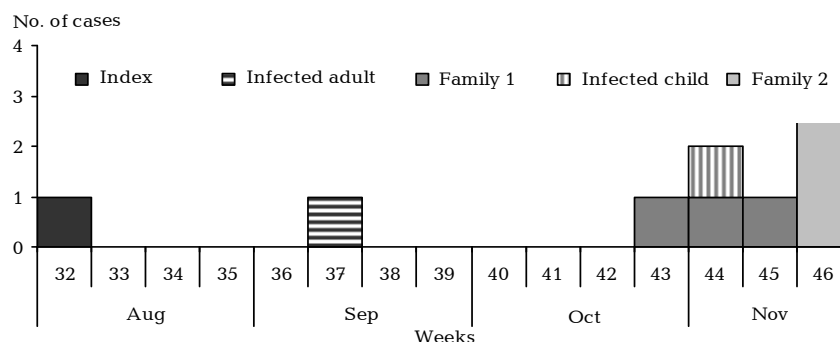
The first notified case was a pre-school child who had presented with symptoms nearly a month earlier and who had then been admitted to hospital in Turkey during a prolonged stay there. The child was the only person in the family who had not received hepatitis A vaccination. HAV was detected in blood, and genotyping showed type IB, a type of virus which is common in the Middle East. The case is considered the primary case of the outbreak, [Figure 1](#). It was possible to sequence virus from five of the eight subsequent cases, and all had identical HAV. The secondary cases were presumably all infected in the same local area as no stays abroad or other known exposures were documented.

The nine cases comprise four pre-school children, two school children and three adults. Two of the adults were mothers of the pre-school children, and the two school children were siblings of the pre-school children. In the third adult, no contact with children was documented. The pre-school children were affiliated with two local child-care centres. In two of the pre-school cases, it was not possible to exclude that infection had occurred at the centre. On this basis, post exposure hepatitis A vaccination was offered to all children and staff at the centre. The involved centres were informed about relevant preventive measures including intensified hygiene measures. Furthermore, the Medical Officers of Health and the Municipal Health Service assisted by the SSI Central Infectious Hygiene Unit visited the two child care centres in question to review hygiene procedures. The Medical Officers of Health also informed the community's general practitioners.

Commentary

Infection among children following stays in hepatitis A endemic areas is a well-known outbreak cause. In pre-school children, HAV infections are frequently subclinical. Vaccination has proven to be an effective measure of outbreak control and it also yields prolonged immunity.

Figure 1. Epidemic curve of the Farum hepatitis A outbreak, 2010



Acute HAV infection is notifiable on form 1515. In case of disease clusters, new cases shall furthermore be notified by telephone to the MOH. The National Board of Health's guideline on prevention of viral hepatitis states that children - including children of parents from endemic areas - should be immunized prior to trips abroad that involve a risk of infection. EPI-NEWS 35/02, EPI-NEWS 26a+b/10 and www.ssi.dk/rejser (Danish language).

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NOROVIRUS OUTBREAK (RASPBERRIES) IN THE STAFF CANTEN AT KØGE HOSPITAL

On 12 January 2011, Køge Hospital notified 15 cases of vomiting and diarrhoea among the kitchen staff and disease cases among the hospital staff. No cases were reported among admitted patients and a common source of infection in staff food was therefore suspected. The supplier's kitchen was temporarily closed, 22 tonnes of handled foods were discarded, hygiene procedures were tightened and the staff who had gastroenteritis were instructed to remain off-duty for a 48-hour period after their symptoms had disappeared. Veterinary and Food Administration East organised a questionnaire survey among the staff, and data were analysed in collaboration with Statens Serum Institut. A total of 150 questionnaires were returned from staff who had eaten at the staff canteen or the kitchen staff's own canteen on 10 or 11 January. Among these, a total of 97 had presented with vomiting and/or diarrhoea. Among the 97 with symptoms, 21 were kitchen staff while the remaining were from more than 20 hospital departments. None of the 40 kitchen staff members had fallen ill prior to

Tuesday 11 January. The data collected on food consumption on 10 and 11 January pointed towards a red cabbage salad with orange and raspberry. A statistical analysis demonstrated that 88 among 93 staff had ingested the red cabbage salad on either Monday or Tuesday yielding an odds ratio of 185 (95% confidence interval: 41-925). Norovirus genotype I was found in 13 of 14 stool samples as well as in an open package of raspberries from the kitchen. Imported and frozen raspberry dust from Serbia had been used. The raspberries were withdrawn on 17 January. Raspberries from the same lot had been used in the same week at a company in Herlev, where it resulted in a similar outbreak affecting 30 of 120 employees.

Furthermore, the outbreak at Køge Hospital was associated with another two outbreaks caused by the same genotype of norovirus (I.b/I.6) in October and November of 2010 in Viborg and Aarhus, respectively, where the raspberry from the same producer was the suspected source of infection.

Commentary

Imported frozen raspberries have once again been identified as the source of norovirus EPI-NEWS 35/05, 38/05 and 01/06. Norovirus outbreaks at hospitals can have severe consequences in already weakened patients, but this outbreak goes to show that the spreading of norovirus can be effectively countered by good hand hygiene among staff members and rapid responses from the Hospital and the Regional Food Administration including information and control of the outbreak.

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Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2011 figures are preliminary)

Table 1	Week 4 2011	Cum. 2011 ¹⁾	Cum. 2010 ¹⁾
AIDS	3	5	8
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	0	2
Diphtheria	0	0	0
Food-borne diseases	3	9	17
of these, infected abroad	0	0	4
Gonorrhoea	3	16	58
Haemorrhagic fever	0	0	0
Hepatitis A	0	3	7
of these, infected abroad	0	1	1
Hepatitis B (acute)	1	1	4
Hepatitis B (chronic)	4	9	11
Hepatitis C (acute)	0	0	0
Hepatitis C (chronic)	3	20	24
HIV	10	49	40
Legionella pneumonia	1	5	10
of these, infected abroad	0	1	2
Leprosy	0	1	0
Leptospirosis	0	0	0
Measles	2	2	0
Meningococcal disease	2	12	4
of these, group B	0	1	4
of these, group C	0	5	0
of these, unspec. + other	2	6	0
Mumps	0	1	1
Neuroborreliosis	0	0	2
Ornithosis	0	0	0
Pertussis (children < 2 years)	1	4	6
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	0	0
Listeria monocytogenes	0	0	2
Streptococcus pneumoniae	0	8	9
Other aethiology	0	2	2
Unknown aethiology	0	0	1
Under registration	1	2	0
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	2	5	11
of these, infected abroad	1	3	8
Syphilis	5	43	28
Tetanus	0	0	0
Tuberculosis	6	26	21
Typhoid/paratyphoid fever	1	1	3
of these, infected abroad	1	1	1
Typhus exanthematicus	0	0	0
VTEC/HUS	2	6	13
of these, infected abroad	0	1	1

¹⁾ Cumulative number 2011 and in corresponding period 2010

Selected laboratory diagnosed infections

Number of specimens, isolates, and/or notifications received in SSI laboratories

Table 2	Week 4 2011	Cum. 2011 ³⁾	Cum. 2010 ³⁾
Bordetella pertussis (all ages)	3	11	14
Gonococci	2	10	57
of these, females	0	4	13
of these, males	2	6	44
Listeria monocytogenes	0	1	6
Mycoplasma pneumoniae			
Resp. specimens ³⁾	6	96	11
Serum specimens ⁴⁾	8	57	32
Streptococci ⁵⁾			
Group A streptococci	7	27	19
Group B streptococci	3	16	11
Group C streptococci	1	7	3
Group G streptococci	2	15	21
S. pneumoniae	25	112	138
Table 3	Week 2 2011	Cum. 2011 ²⁾	Cum. 2010 ²⁾
MRSA	25	37	56
Pathogenic int. bacteria ⁶⁾			
Campylobacter	45	79	78
S. Enteritidis	14	18	11
S. Typhimurium	3	6	12
Other zoon. salmonella	8	18	19
Yersinia enterocolitica	6	9	7
Verocytotoxin- producing E. coli	3	5	3
Enteropathogenic E. coli	3	5	5
Enterotoxigenic E. coli	10	20	5

²⁾ Cumulative number 2010 and in corresponding period 2009

³⁾ Resp. specimens with positive PCR

⁴⁾ Serum specimens with pos. complement fixation test

⁵⁾ Isolated in blood or spinal fluid

⁶⁾ See also www.germ.dk

The mycoplasma pneumoniae epidemic is receding

Since last autumn, Denmark has witnessed a nation-wide Mycoplasma pneumoniae epidemic, EPI-NEWS 48/10. When the epidemic peaked, approx. 20 pct. of all specimens tested for M. pneumoniae by PCR were positive. Since Christmas, the number of positive tests has dropped considerably, even though the total number of specimens has increased. In weeks two and three, a total of approx. 120 weekly cases were detected and the positive rate dropped to approx. seven. Consequently, the epidemic has receded drastically, but a relatively high number of cases are still being recorded. The 2010/2011 epidemic may therefore be described as a minor M. pneumoniae epidemic which receded relatively quickly. However, the number of M. pneumoniae cases is expected to exceed normal levels in months to come.
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2 February 2011