Communicable Diseases

Surveillance of AIDS in Britain: September 1983

Prepared by the Public Health Laboratory Service Communicable Disease Surveillance Centre

Eight reports of patients meeting the diagnostic criteria used by the Communicable Disease Surveillance Centre were received during September.

A man with haemophilia died in August 1983 with *Pneumocystis carinii* pneumonia; a 28 year old homosexual man from London died in September 1983 with gastrointestinal candidiasis; a 21 year old homosexual man from Cardiff was reported to have oesophageal candidiasis; a 37 year old homosexual man from Kent recently developed Kaposi's sarcoma; a 33 year old woman from north-west England died in August 1983 with Kaposi's sarcoma and *P carinii* pneumonia; a 35 year old homosexual man from north-west England was reported with generalised candidiasis and an atypical pneumonia; a 52 year old homosexual man from London had gastrointestinal candidiasis, salmonellosis, and encephalopathy; and a 45 year old heterosexual man from the Dominican Republic was found to have Kaposi's sarcoma. Four of the homosexual men had had sexual contact with United States nationals and one with a Caribbean national.

A 22 year old homosexual man with cytomegalovirus infection, previously included in the total, has been withdrawn because the patient was being treated with corticosteroids and therefore does not meet the case definition. The total number of cases in Britain reported to the Communicable Disease Surveillance Centre is now 24.

Inquiries are in hand in several suspected cases. Laboratory reports were received of six young men with possible opportunistic infections; none of these patients had evidence of AIDS.

Illness associated with fish and shellfish in England and Wales, 1981-2

Prepared by the Public Health Laboratory Service Communicable Disease Surveillance Centre and the Food Hygiene and Virus Reference Laboratories

Fish and shellfish poisoning in Britain between 1965 and 1980 was reviewed recently.[1] This report presents a summary of reported outbreaks and cases of illness associated with fish and shellfish in England and Wales 1981-2.

Methods

Data were obtained from four sources during 1981 and 1982: firstly, from laboratory reports by microbiologists to the Public Health Laboratory Service Communicable Disease Surveillance Centre; secondly, from reports of outbreaks by medical officers for environmental health to the Communicable Disease Surveillance Centre; thirdly, from information provided by telephone to the Communicable Disease Surveillance Centre by microbiologists, medical officers of environmental health, and environmental health officers; fourthly, from information sent to the Food Hygiene Laboratory and Virus Reference Laboratory, Colindale.

In this report the term "incident" is used to mean either a single sporadic case or an outbreak of two or more related cases. The analysis included single sporadic cases of scombrotoxin poisoning and of *Vibrio parahaemolyticus* food poisoning on the assumption that these conditions were due to the consumption of fish or shellfish. Sporadic cases of gastroenteritis associated with canned salmon were also included. No other sporadic cases were reported.

Outbreaks were included if (*a*) there were two or more clinical cases of laboratory confirmed infections (at least one person ill) in people eating a common foodstuff, and (*b*) the causative organism was isolated from the foodstuff (or food premises) and was identical to that isolated from the infected people, or people in the same household or group who were uninfected had not consumed the implicated foodstuff, or the implicated foodstuff was the only common factor to all the cases which could be determined. The number of cases included in each outbreak was the number known to have been ill, whether or not they had been examined microbiologically.

Results

In 1981 there were 37 reported incidents of fish and shellfish associated illness comprising at least 141 cases and in 1982 91 reported incidents with at least 451 cases (see table).

There was one salmonella outbreak reported in 1981 in which 16 people became ill after a reception at a hotel attended by 87 people; the outbreak was attributed to frozen prawns because only those who ate prawns were affected. *Salmonella bareilly* and *S hindmarsh* were isolated from the affected patients but no food was available for examination.

There were nine single cases of *Vibrio parahaemolyticus* food poisoning in 1981 and 14 in 1982, in all of which patients were infected abroad; three were attributed to "seafood" and one each to shellfish and prawns, but in the other 18 the vehicle of infection was not recorded. No outbreaks were reported.

Fifty one incidents of scombrotoxin poisoning were reported in England and Wales in 1981-2 (see table), 13 of which were attributed to the consumption of mackerel. One of these 13 incidents was an outbreak of 22 cases in a canteen where prompt reporting of the episode enabled rapid investigation and withdrawal of the implicated consignment of frozen mackerel fillets and the prevention of further cases. There were nine incidents attributed to canned pilchards, all of which occurred in 1981, 17 incidents attributed to tuna fish, and 12 to other fish.

Early in 1981 cases of hepatitis A possibly associated with the consumption of cockles were reported in south east England, and a subsequent case control study of 450 notified cases of infective jaundice confirmed this association.[2] In the first five months of 1982 six outbreaks of hepatitis A associated with shellfish were reported in Bristol, London, London and Surrey, Birmingham, Basildon, and Wiltshire, comprising at least 172 cases (see table); two of them were associated with fresh cockles from Essex, one with frozen cockles from the Netherlands, one with fresh mussels from Ireland, one with pickled mussels from Ireland, and one with oysters from Devon.

There was one reported incident of shellfish borne gastroenteritis in England and Wales in 1981 in which small round virus particles were seen in the faeces of all four people affected; in 1982 there were seven reported incidents comprising 52 cases in which small round virus particles were also seen in the faeces of at least one of the sufferers (see table). The 1981 incident was a family outbreak attributed to cockles; in January to March 1982 there were four similar episodes associated with cockles, all of them in Essex. Oysters were implicated in three outbreaks: one in Kettering in March, one in Colchester in October, and the third in London in December. In the Colchester outbreak 10 out of 17 people who attended a lunch became ill after eating oysters from south west Scotland; the London episode was similar and affected 17 of 27 people, but the oysters came from Essex; the source of the oysters in the Kettering outbreak was not known.

Outbreaks of unknown cause

Outbreaks of gastroenteritis associated with eating shellfish, clinically similar to the above with an incubation period of 24 to 48 hours, were reported in 1981 and 1982 but either faeces were not examined or virus particles were not visualised in faeces on examination by electron microscope. There were three such outbreaks affecting 79 people in 1981, one attributed to oysters, one to seafood cocktail, and one to prawns.[3] In 1982 there were nine outbreaks affecting 70 people, three attributed to oysters, two to prawns and cockles, one to cockles, one to seafood cocktail, and two to prawn cocktail (see table).

Between April and July 1982 there were 23 incidents of gastrointestinal illness associated with canned salmon,[4] and three further outbreaks during the remainder of the year, altogether comprising 32 cases (see table). Usually there was a short incubation period of eight hours or less and vomiting was a prominent feature, although it was the presenting feature in only about one third of the cases. No bacterial, viral, or toxic cause was shown on examination of faeces and salmon. Of the 26 incidents, 25 were associated with Canadian salmon, most of them with 7½ oz cans but some with 3½ oz cans; one was associated with canned salmon from the United States. Five different brands with many different batch numbers were involved.

Incidents and cases

Cause	1981		1982	
	Incidents	Cases	Incidents	Cases
Bacterial food poisoning:				
Salmonellas	1	16	0	0
Vibrio parahaemolyticus	9	9	14	14
Scombrotoxin poisoning	22	33	29	111
Viral illness:				
Hepatitis A	1	NK	6	172
Gastroenteritis	1	4	7	52
Unknown cause:				
Shellfish gastroenteritis	3	79	9	70
Canned salmon gastroenteritis	0	0	26	32
Total	37	141	91	451

Discussion

Between 1976 and 1980 about half the 79 incidents of scombrotoxin poisoning were due to mackerel,[5] but in 1981-2 only 13 of 51 such incidents were due to mackerel. This was probably mainly due to an increase in incidents reported associated with non-scombroid fish, such as the nine incidents due to canned pilchards in 1982, at least five of them associated with one batch imported from Peru.

Since 1979 there has been an increase in notifications of infective jaundice in England and Wales due to a rise in the number of hepatitis A infections.[6] In 1979 there were 3216 notifications; in 1980, 5143; in 1981, 9834; and in 1982, 10 602 (unpublished). Although most of this increase has been in children, foodborne infection in adults has been reported with increased frequency. The first outbreak of hepatitis A infection associated with shellfish was reported in the Midlands and northern England in 1978: over 80 people who had consumed mussels imported from Ireland were affected.[7] In 1981 and 1982 there were several outbreaks (see table), and corresponding in time with these outbreaks were increases in the number of notifications of infective jaundice, particularly in people aged 25 years and over, suggesting that hepatitis A due to shellfish was possibly more extensive than the identified outbreaks indicated.

In 1976 widespread outbreaks of gastroenteritis, probably of viral cause, associated with the consumption of cockles were reported in southern England[8]; between 1976 and 1980 nine further outbreaks associated with shellfish took place.[9] In 1980 a new food poisoning outbreak reporting system was set up specifically to identify such outbreaks of unknown aetiology, and in 1981-2 there were 19 similar outbreaks, in eight of which small round virus particles were seen in the faeces of people affected. These outbreaks were attributed to a variety of shellfish from different sources.

The increase in reported outbreaks of both gastroenteritis and hepatitis A associated with shellfish may have been due to many factors such as improved clinical and virological diagnosis, better reporting, changes in food habits, and declining population immunity to these infections. Sewage pollution of filter feeding shellfish has, however, been identified as an important problem requiring investigation so that more effective means of depuration or cooking need to be introduced to prevent these diseases. Until this is accomplished further outbreaks of viral gastroenteritis and hepatitis A infection may be expected to occur among people consuming raw or undercooked shellfish.

Between July and October 1978 seven incidents of gastroenteritis with over 30 cases were reported associated with eating canned salmon from the USSR. No pathogens were isolated from the patients or the salmon.[6] The 26 incidents reported here in 1982 associated mainly with Canadian canned salmon were similar, and again no causal agent was identified. In some of these episodes the association with salmon may have been spurious, possibly being reported because of the public awareness of illness associated with canned salmon which followed the outbreak of four cases of type E botulism in Birmingham in 1978 and two cases in Belgium in 1982 due to American salmon. Nevertheless, there does seem to be a syndrome of gastroenteritis with a short incubation period that occurs occasionally after the consumption of canned salmon from the north Pacific, the aetiology of which remains obscure.

References

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