ill people ate the oysters. For some of the food items, however, nearly everyone ate a portion, and comparisons of attack rates with people who did not eat a food item could be only tentative. The preparation details of the other foods suggested that they had been adequately cooked, and the oysters were eaten raw.

There were isolated reports of gastrointestinal illness associated with oysters in the town at the same time among people who had not attended the reception. An unexplained finding was the markedly different attack rates between the English (11/20, 55%) and the French (2/16, 13%). Pathogenic bacteria were not cultured from any of the four stool specimens.

Oysters

Coliform counts from the oyster fishery on the River Teign in Devon, three days before despatch of the suspect oysters, showed an initial figure before treatment of 35 000/100 ml of body tissue, falling to 330/100 ml after 72 hours depuration. Around 500 Pacific oysters, already depurated for 72 hours, were brought from the fishery and transported to a fish market from where the retailer collected them the following day. They were then stored in a depuration plant and treated with seawater circulated continuously through ultraviolet light for 15 days until taken to the reception. Water in the tank where this prolonged depuration took place was circulated through the plant for at least 72 hours before introduction of the oysters.

Discussion

The pattern of illness in this outbreak was similar to that of acute non-bacterial gastroenteritis, also described as "Norwalk like"; the illness was of short duration, over half those affected vomited, the median incubation period was 36 hours, and recognised bacterial pathogens were not isolated from convalescent stool specimens.

Unfortunately no acute stool specimens were available for electron microscopy.

The food specific attack rates suggested that oysters were the vehicle of infection. The difference in attack rates between the English guests and their French visitors was unexplained. Possibly the French guests had previously been exposed to the particular strain of virus.

Large outbreaks of viral gastroenteritis have been reported associated with the consumption of raw oysters,^{2,4} and in some of these outbreaks the oysters had been cleansed by depuration for at least 72 hours.^{4,5} Although harvested originally from grossly polluted waters, the oysters implicated in the present outbreak underwent prolonged depuration. There was, however, some doubt about the second 15 day depuration period in that this plant was occasionally topped up with untreated seawater while in operation, and we could not be certain that this had not occurred. Nevertheless, the outbreak suggests the possibility that even prolonged depuration may not remove certain viruses from oysters. In the belief that relaying in a natural environment may be more efficient than depuration at removing pathogenic viruses, it has been suggested that oysters grown in heavily polluted waters should be relayed in approved clean waters for several days before cleansing in a tank depuration system.⁶

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Length of survival of patients with acquired immune deficiency syndrome in the United Kingdom

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Abstract

An analysis of the lengths of survival of patients with the acquired immune deficiency syndrome presenting with different opportunistic diseases was performed using epidemiological data routinely collected at the PHLS Communicable Disease Surveillance Centre. The overall crude case fatality rate was 55.4% (93/168). The median survival times were: 21.2 months for Kaposi's sarcoma, 12.5 months for *Pneumocystis carinii* pneumonia, and 13.3 months for other opportunistic infections. The shortest median survival time (6.6 months) was found for

those with both Kaposi's sarcoma and *P carinii* pneumonia. There were significant differences between durations of survival of patients with Kaposi's sarcoma and those with all other diseases, which indicated impaired cellular immunity apart from opportunistic infections.

This analysis shows that those with Kaposi's sarcoma alone have the most favourable prognosis.

Introduction

During 1981 reports of patients with the acquired immune deficiency syndrome (AIDS) in the United States were published,¹ and in December of that year the first case of AIDS diagnosed in a homosexual man in Britain was documented.² In 1982 a surveillance scheme was set up by the Public Health Laboratory Service Communicable Disease Surveillance Centre (CDSC) in collaboration with the Communicable Disease (Scotland) Unit. Up to 1 June 1985, 178 cases were reported. We reviewed these cases to assess the duration of survival.

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Surveillance of AIDS in United Kingdom

The surveillance scheme for AIDS was set up to detect the syndrome, to monitor trends in the incidence, and to describe the epidemiology. The data comprised voluntary reports by physicians, laboratory reports of opportunistic infections, and data on deaths mentioning AIDS or associated conditions provided by the Office of Population Censuses and Surveys (OPCS). Only cases fulfilling the criteria for the original case definition compiled by the Centers for Disease Control in the United States were included.¹

When a clinical report was received the clinician under whose care the patient was admitted was asked to complete a confidential questionnaire covering basic descriptive epidemiology, clinical details, and potential exposure factors. Patients not falling within recognised risk groups were interviewed by a medical epidemiologist from CDSC. Questionnaires were stored under conditions of maximum security and statistical analyses of data were provided monthly.

Methods

The following information, provided from the routine data file, was chosen for the survival analysis presented in this paper: date of onset of symptoms, date of death, survival state, diagnosis, and age.

Because the onset of AIDS is insidious, the date of onset was defined as the date on which each patient first presented for medical advice in his current illness. Mortality data were reviewed between June and July 1985 for all

cases of AIDS diagnosed in Britain from the beginning of surveillance in 1982 up to 1 June 1985.

Cases were compared with copies of death entries from the OPCS, and for all reported cases for which no death entry existed a follow up inquiry was made to the reporting doctor.

Cases were grouped into five categories according to the mode of presentation of the syndrome: Kaposi's sarcoma; *Pneumocystis carinii* pneumonia; both Kaposi's sarcoma and *P. carinii* pneumonia; other opportunistic infections; and cerebral lymphoma. The age of the patients at the time of reporting was used.

Data processing—Data analysis was conducted using an IBM 4341 computer. Mortality analysis² was performed using the PIL program "Life Tables and Survival Functions" of the Biomedical Data Package, University of California.³ Mortality data are presented as estimates of the survival distribution by the actuarial life table method.⁷ Survival curves are presented to compare different subsets of patients according to their mode of presentation; the equality of the curves was tested by the Breslow statistic.⁸

Results

Altogether 178 cases were reported to the CDSC up to 1 June 1985. Two patients with cerebral lymphoma were excluded from the analysis since it was impossible to compare this particular disease category with other types because of the small numbers.

Follow up information from eight cases was not obtainable: for six

Survival from onset: (a) patients with Kaposi's sarcoma versus patients with *P. carinii* pneumonia. Breslow statistic 5.372, $p < 0.05$; (b) patients with Kaposi's sarcoma versus patients with Kaposi's sarcoma and *P. carinii* pneumonia. Breslow statistic 19.08, $p < 0.001$; (c) patients with Kaposi's sarcoma versus patients with *P. carinii* pneumonia or other opportunistic infections. Breslow statistic 4.555, $p < 0.05$; (d) patients with *P. carinii* pneumonia versus patients with Kaposi's sarcoma and *P. carinii* pneumonia. Breslow statistic 4.187, $p < 0.05$; (e) patients with Kaposi's sarcoma versus patients with *P. carinii* pneumonia or other opportunistic infections or Kaposi's sarcoma and *P. carinii* pneumonia. Breslow statistic 6.504, $p < 0.05$.

information on the date of presentation was missing, and for two the survival state was unknown. Thus 168 (96%) cases were eligible for survival analysis; 44 (26%) presented with a diagnosis of Kaposi's sarcoma only, 69 (41%) with *P carinii* pneumonia, 12 (7%) with both Kaposi's sarcoma and *P carinii* pneumonia, and 43 (26%) with a diagnosis of opportunistic infections other than *P carinii* pneumonia. During the 74 months that elapsed between presentation of the first case in Britain (March 1979) and the end of May 1985 there were 21 (48%) deaths in the 44 patients with Kaposi's sarcoma, 39 (57%) in the 69 patients with *P carinii* pneumonia, 9 (75%) in the 12 patients with both Kaposi's sarcoma and *P carinii* pneumonia, and 24 (56%) in the 43 patients with other opportunistic infections. The overall mean age of the patients was 38.3 (SE 9.0) years. Those with *P carinii* pneumonia were aged 40.1 (9.4), those with other opportunistic infections 35.7 (9.7), those with Kaposi's sarcoma 38.5 (7.8), and those with both Kaposi's sarcoma and *P carinii* infection 36.0 (6.3). In two patients with *P carinii* pneumonia and two with both Kaposi's sarcoma and *P carinii* infection data on age were missing.

The overall crude case fatality rate was 55% (93 out of 168). The median survival time of the 168 patients from presentation was 13.5 months with a standard error of 1.2 months; three quarters of the patients were dead after 28 months.

For Kaposi's sarcoma the median survival time was 21 months (SE 7 months). After 44 months from presentation three quarters of the patients with Kaposi's sarcoma were dead. Patients with *P carinii* pneumonia had a median survival of 12.5 months (2.0); after 22 months, three quarters of the patients were dead. Among the 12 patients presenting with both Kaposi's sarcoma and *P carinii* pneumonia the median survival time was 6.6 months (1.0), and three quarters of the patients were dead after 10 months. The last group, including those diagnosed as having other opportunistic infections, had a median survival of 13.3 months (2.5). The table summarises median survival times of the patients with AIDS by mode of presentation.

Median survival time (in months) of patients with AIDS in United Kingdom by mode of presentation

Disease category	Median* (SE)	No†	No dead (%)
Kaposi's sarcoma	21.2 (7.0)	44	21 (48)
<i>P carinii</i> pneumonia	12.5 (2.1)	69	39 (57)
Other opportunistic infections	13.3 (2.5)	43	24 (56)
Kaposi's sarcoma and <i>P carinii</i> pneumonia	6.6 (0.9)	12	9 (75)
Total	13.5 (1.2)	168	93 (55)

*Using the actuarial life table method. †Patients reported to CDSC up to 1 June 1985.

Survival curves are presented to compare different groups of patients according to their mode of presentation. The differences between disease categories were statistically significant between Kaposi's sarcoma and *P carinii* pneumonia ($p=0.05$) (fig (a)) and Kaposi's sarcoma and both Kaposi's sarcoma and *P carinii* infection ($p=0.001$) (fig (b)) but not between Kaposi's sarcoma and other opportunistic infections ($p=0.1$). Survival among patients with *P carinii* pneumonia was compared with that among patients with other opportunistic infections. The difference between them was not, however, statistically significant ($p=0.4$). These two groups were thus combined and compared with patients presenting with Kaposi's sarcoma. The combined group (*P carinii* pneumonia and other opportunistic infections) experienced a median survival time of 13.1 months (1.5). The difference between the two survival times was statistically significant ($p=0.05$) (fig (c)). Survival among patients who presented with both Kaposi's sarcoma and *P carinii* pneumonia was compared with survival

among patients who presented with *P carinii* pneumonia only (fig (d)); the difference between them was again statistically significant ($p=0.05$).

To assess the difference between patients who presented with Kaposi's sarcoma and all the others the three groups of patients who presented with *P carinii* pneumonia, other opportunistic infections, or both Kaposi's sarcoma and *P carinii* infection were combined to form the general category "all others." The median survival time for this combined group was 12.1 months (1.5). The difference in survival between this group and that of the patients with Kaposi's sarcoma (fig (e)) was statistically significant ($p=0.05$).

Discussion

Of the first 168 patients with AIDS reported in Britain, 26% presented with Kaposi's sarcoma, 67% with opportunistic infections, including *P carinii* pneumonia and other opportunistic infections, and 7% with both Kaposi's sarcoma and *P carinii* pneumonia (Communicable Disease Report, 85/30). This study showed that the median survival time was longer for patients with Kaposi's sarcoma than for those with *P carinii* pneumonia or other opportunistic infections, while patients presenting with both Kaposi's sarcoma and *P carinii* pneumonia had the worst prognosis. The reasons for these differences are not clear. Age did not seem to influence survival.

Other studies on the mortality of patients with AIDS have shown similar results,^{9,10} though in one no difference among different groups was observed.¹¹ Researchers have shown that the stage of clinical illness at the time of diagnosis predicts survival in patients diagnosed as having Kaposi's sarcoma,¹² the severity of clinical illness possibly reflecting a degree of immune impairment.

The survival times shown by this study confirm that the management of both the opportunistic infections and Kaposi's sarcoma is a primary therapeutic problem in patients with AIDS. The poor prognosis and the increasing incidence of the disease in Britain as well as other parts of the world call for a better understanding of AIDS to achieve better treatment and the eventual prevention of the disease.

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What investigation and treatment are advised for a person with the restless legs syndrome?

The restless legs syndrome (Ekbom's syndrome) may be diagnosed with confidence on clinical criteria from a history of unpleasant creeping sensations and aches in the leg muscles. These symptoms occur at rest, are most aggravating at night, and may be relieved by walking to and fro. A physical examination is necessary to exclude any serious peripheral nerve or muscle disease. Biochemical changes such as hypocalcaemia and uraemia are often quoted but rarely seen. Other symptoms such as cramps, nocturnal myoclonus, or moving toes, however, are occasionally present and may be accepted as a variant of the syndrome. The condition may be familial, occur

in pregnancy (10-15%), or be related to the ingestion of neuroleptics, tobacco, or caffeine. If associated with sleep disorders, fatigue, anxiety, moderate hypothyroidism, or Parkinsonism treatment of the primary disorder may also relieve the restless legs syndrome. A nocturnal tot of brandy has been advocated, but the simplest and most efficacious therapy is clonazepam 0.5 mg every night with chlorpromazine 25 mg every night as an acceptable alternative.—E M R CRITCHLEY, consultant neurologist, Preston.

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