

Travellers' diarrhoea: does it occur in the United Kingdom?

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SUMMARY

Of 485 persons who replied to a questionnaire after attending a European Congress in September 1974, diarrhoea was experienced by 4 of 143 British residents and 2 of 342 visitors to the United Kingdom. This extremely low incidence of travellers' diarrhoea contrasts with the high incidence reported in travellers from countries with cool climates and north European standards of hygiene to countries where these conditions do not hold.

INTRODUCTION

The term 'travellers' diarrhoea' is used to describe acute gastroenteritis affecting persons within approximately 2 weeks of arrival from home in another country, and in most cases clearing up spontaneously within a few days of onset. A variety of causes of a mainly anecdotal character has been traditionally suggested. These are concerned mainly with changes to an unaccustomed diet, or to different climatic conditions. It has been customary to exclude from this term illness due to enteropathogenic salmonellas, shigellas, clostridia, protozoa, or staphylococcal toxin, in which case a term appropriate to the respective organisms is often employed, although on clinical grounds alone the distinction is often not clear. A strain of *Escherichia coli*, producing a heat-labile enterotoxin, has been incriminated in an outbreak in Mexico (Gorbach *et al.* 1975) and, recently, in another outbreak in that city (Merson *et al.* 1976). This organism was isolated in a majority of cases, and various other organisms in a minority. Investigating an outbreak at a congress in Teheran, Kean (1969) found that there was a high incidence of diarrhoea in those participants who came from countries with cool climates where north European standards of hygiene prevailed, whilst there was a low incidence in those from other countries, and an extremely low incidence in the indigenous population. Consideration must be given to the possibility that the disease can be due to infection by a strain or strains of organisms to which the inhabitants of the host country are immune, but to which visitors are susceptible. Were this the case, one might expect the incidence of travellers' diarrhoea affecting visitors from countries with warm climates to countries with cool climates to be comparable to the incidence in those travelling contrariwise.

No studies appear to have been made on the incidence of travellers' diarrhoea in countries with cool climates. The availability of the list of participants at the 9th European Congress of Allergology and Clinical Immunology, held in London in September 1974, presented an opportunity to circularize the participants with

an enquiry regarding the occurrence of gastroenteritis. The results of this inquiry are reported here.

METHOD

A questionnaire (see Appendix) was sent to 584 participants of whom 363 (62%) replied. Many participants were accompanied by family members who experienced the same or similar environmental conditions after arrival and who were therefore included in the questionnaire's circulation. Thus a total of 485 replies were received. Of these, 143 stemmed from United Kingdom residents and 342 from visitors. The inquiry covered the period from the time of arrival in this country, (or from the start of the congress, in the case of U.K. residents) until a few days after the conclusion of the congress – a period of about 10 days. As symptoms occurring after arrival could have been due to infection acquired en route, participants were asked to say if they took food or drink in other countries while travelling. The British hotel industry employs a proportion of immigrants from countries with hot climates. Because of the possibility that some of these might be carriers of enteropathogenic micro-organisms, participants were asked to state if they stayed in hotels. They were also asked if they took prophylactic drugs.

RESULTS

The 485 participants, including companions, who replied were distributed thus: United Kingdom 143, France 57, Sweden 40, West Germany 34, Belgium 29, Norway 24, Denmark 22, Switzerland 19, Spain 18, U.S.A. 18, Netherlands 17, Finland 13, Yugoslavia 11, Hungary 6, Italy, 6 Czechoslovakia 5, Austria 4, Republic of Ireland 4, and Canada, Egypt, Greece, Israel, Japan, Poland, Portugal and Tunisia together, 15.

Six persons had diarrhoea during the relevant period, of whom 4 were British, 1 Danish and 1 Hungarian. Of the Britons, 2 stayed in hotels and 2 at home, although all ate meals in restaurants or canteens. The Dane stated that he and 5 friends not attending the congress were all affected 10 hours after eating in an Indian restaurant. None of the participants at the congress took prophylactic drugs.

DISCUSSION

The incidence of diarrhoea amongst visitors to a congress held in London was extremely low. It was higher amongst the indigenous participants (2.8%) than amongst visitors from abroad (0.6%). This might indicate a higher susceptibility to restaurant or hotel food in British residents than in visitors, but the numbers are too small to differentiate conclusively. When one compares the incidence of acute gastrointestinal symptoms occurring at congresses held in Mexico – 29% (Gorbach *et al.* 1975) and 49% (Merson *et al.* 1976), and Teheran – 40% (Kean, 1969), it is clear that the risk of contracting this disease in the United Kingdom is extremely low. The same probably applies to other countries with cool climates and north European standards of hygiene.

APPENDIX

Questionnaire to participants and companions

Visitors to the U.K.

1. Did you come to the U.K. direct from home?
2. If not, in what other countries did you stay en route, and in which of them (*underline*) did you take food or drink during the 2 days preceding your arrival?
3. In the U.K. did you stay in a hotel, a private apartment or with friends?

U.K. residents

4. Did you reside at home during the congress?
5. If not, did you stay in a hotel, with friends or otherwise?

All participants and associates

6. Did you have diarrhoea during or soon after the congress?
 7. If not, did you take any drugs for prophylaxis, and if so, which?
- If the answer to (6) is 'Yes', please continue.
8. How long approximately (hours? days?) after your arrival did gastrointestinal symptoms commence?
 9. Did you suffer from vomiting, fever, abdominal pain or myalgia?
 10. What was the duration of symptoms?
 11. Did you take any drugs for prophylaxis; if so, which?

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