Foreword

S.L.

Sherwood L.

Gorbach

Tufts University School of Medicine, Boston, Mass., USA

Over twenty million people travel from developed to developing countries each year, mainly for holidays. Besides the adventures of the trip itself, between 20 to 40% of these visitors will experience the unwelcome occurrence of intestinal distress, known by a colorful assortment of monikers by the cognoscenti, but in polite discourse as traveler's diarrhea. The severity of this illness varies from a mild interference of Pax Intestinum, causing only a temporary change in arrangements, to a more severe upset requiring confinement to bed. In the final analysis, corporal urgings can intrude on the most engrossing travel plans, necessitating an adjustment of itinerary for even intrepid adventurers who must, nevertheless, respond to earthy needs.

A reputation for traveler's diarrhea can add the taint of concern when planning a trip to a particular country. Ironically, the implicated country is often among the most needy in terms of earning foreign currency from tourism. Thus, this reputation, deserved or exaggerated, can frighten visitors, and result in huge losses in potential revenues.

Besides the economic losses, a location with a truly high incidence of diarrhea among travelers clearly has a problem with gastrointestinal infections in the local population as well. The traveler is the immunologically naive sentinel, the 'canary in the mine', who acquires infectious agents from environmental sources, especially food and water, which are already prevalent in the community. The concern about illnesses in visitors is a relatively minor issue when compared to the high morbidity that diarrheal disease can cause in the community, particularly among its most vulnerable members, young children.

Several factors control the incidence of traveler's diarrhea. The destination of travel has the most profound impact. In general, three geographic zones of 'diarrhea influence' are recognized. The low-risk areas are in North America, northern and central Europe, and certain Caribbean islands, and have traveler's diarrhea rates of about 5-10%. The middle-risk areas, with rates of 15-20% are located around the Mediterranean region, southern Italy, Greece, and Israel. The high-risk areas are generally in the developing parts of Mexico, South America, Africa and Asia, where rates of 30-50% are recorded. The traveler's country of origin is also an important factor in the calculation, because those who journey from a low- to a high-risk country generally lack intestinal fortitude and are most liable to develop traveler's diarrhea.

©1995

S. Karger AG, Basel

0009-3157/95/

0417-0001\$8.00/0

The age of the traveler is a consideration. Older travelers suffer less often from this illness than those in their twenties, perhaps due to a more careful eating style, intestinal immunity or just the blessing of advanced years. Adventuresome travelers who play intestinal roulette by indulging in

the wares of street vendors are more likely to suffer intestinal problems than those who are careful in their choice of dining venue.

Even with this information, the hapless traveler cannot control all risks if the choice of destination is a high-risk zone. After all, the traveler cannot change his or her age or country of origin. Even the most punctilious person will be unable to resist an occasional dietary indiscretion, such as the ice cube in a soft drink or the enticing strawberries on the dessert. In studies of physicians, surely an informed group of tourists, traveling to international meetings in Teheran and Mexico City, the incidence of diarrhea was in the 40-50% range, not so different from the general traveling public to such areas. The point is that there is an inherent risk of diarrhea associated with travel to certain areas. Many of the factors governing the exposure to infectious agents cannot be controlled fully by the traveler since they relate to the infrastructure of food and beverage management in the locale. The introduction of potable water would surely greatly reduce the risk of diarrhea, not only in the occasional visitor, but in the local inhabitants as well. The barrier to installing a new water system is limited financial resources confronting a long list of needs. While a few countries are moving toward improving water supplies – Thailand, for example – most of the high-risk areas are caught in an economic bind that will not permit them to deal with the obvious problems of potable water and a safe food supply. Tragically, revenues from tourism cannot be counted on to relieve the situation. For this reason traveler's

diarrhea is 'alive and well' and is not likely to relent in the foreseeable future.

The traveling public must be taught to avoid unsafe foods and beverages, not only to reduce the risk of diarrhea, for which such measures may have some benefit, but also to prevent infection with the multiple other pathogens spread by these vehicles. Yet, several studies have shown that even the most careful traveler can still be hit by diarrheal illness. Unless the traveler is prepared to travel in a plastic space suit and eat and drink from hermetically sealed containers, the risk of acquiring diarrhea must be accepted as a part of the package tour.

The development of the all-purpose traveler's diarrhea vaccine seems only a distant hope rather than a scientific likelihood in the near future, given the heterogeneity of infectious agents and the high incidence (~35%) of cases without an identifiable pathogen. Fortunately, recent studies have shown that rapid institution of antimicrobial therapy with an antimotility drug just after the onset of significant diarrhea can shorten the attack to an acceptable time of only a few hours, causing hardly a delay in itinerary. While the stricken traveler cannot completely stop the runs, one can at least cut one's losses!

Professors Scarpignato and Rampal have done a great service in bringing together this splendid collection of articles that deal with various aspects of traveler's diarrhea. They have recruited an outstanding group of authorities to write on their favorite topics, producing what I believe to be one of the most inclusive monographs available on this subject. As a researcher, physician and frequent traveler, I am grateful for this comprehensive treatise.