Traveller's Diarrhoea

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A change in place and climate has been known to cause changes of bowel habits. Names such as 'Delli belly', 'gyppy tummy', 'Hong Kong dog' and many others indicate that these intestinal disturbances have been associated with a change to new and a possible less hygienic place[1]. With the massive travel and tourism taking place, traveller's diarrhoea has become one of the commonest world epidemics. Although it is a fairly mild disease, but it causes a great deal of social inconvenience. In the past it was thought to occur as a result of change in food and eating habits, but now it is confirmed to have an infectious etiology[2-12] The main epidemiological interest of traveller's diarrhoea is that it is a disease of travellers and does not occur in the natives.

It has been observed that the travellers going from developed countries (with good hygienic and sanitary conditions) to the developing countries (where these conditions are not as good) get traveller's diarrhoea, because of not being immune to the different strains of the infecting organisms. Surprisingly tourists going from developing countries to the developed countries do not get the disease because of a very good immune response and less liklihood of catching a new strain.

Bacteriological investigations have shown that strains of E. coli cause the disease. E. coli causes disease in man by two different mechanisms. In one, bacteria invade the epithelial cells of the colon and causes a dysenteric type of disease with diarrhoea and fever; in the other the organisms produce an enterotoxin which causes watery diarrhoea without fever. In the later the organisms multiply in the small intestine but do not penetrate the cells. [3-7,13,14] Experiments showed that the 'dysenteric' type Of E. Coli penetrated the cells of guinea pig eye they also invaded and killed Hela cells and the epithelial cells of ligated rabbit intestinal loop.[3] The 'Choleriac' type of E. coli did penetrate any cell when fed to volunteers. Both types of E. coli produce disease, if however, soda bicarbonate was given to the volunteers prior to the infecting dose a much smaller dose produced symptoms. Thus the dose plus the gastric acidity may play an importan(part in traveller's 'diarrhoea[9,11,12,15] It has been observed that water polluted with E.coli causes gastro-enteritis. Experiments have shown that strains of E.coli isolated from infants, are capable of producing disease in adults although a much larger dose is required to produce the disease.16 Campylobacter jejuni also causes traveller's diarrhoea[17].

When an infant acquires E.coli infection, he develops diarrhoea and a full blown disease and thereafter becomes immune to that specific strain and will end up with immunity.

The disease in infants is mostly confined to babies under two years of age, because after that age they acquire immunity to it. Perhaps adult travellers in a new environment are in the same host parasite situation as infants at home. They develop diarrhoea from a dose of local microorganism too low to upset the immune status of the local inhabitants.

Regarding prevention and treatment it is difficult to offer advise. E.coll resides in the intestine of man and animals, so hygiene in its widest sense must be the basis of prevention. This of course is easier to advise than to apply. Coil-forms were grown from the cold water but not from the hot water taps,[9] therefore drinking water should be taken from hot water taps only. Various medications are also prescribed for the prevention of traveller's diarrhoea. Some contain sulphonamides or antibiotics, others have less specific components, but it is doubtful if any have much effect. Though the duration of traveller's diarrhoea is not more than a few days, but then, this is enough to spoil a holiday.

Pakistan being a developing country does not have good hygienic and sanitary conditions and that is why the occurrence of diarrhoea in general and traveller's diarrhoea in particular is quite common here.

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