THE EFFECT OF ANTIBIOTICS ON THE DURATION OF DIARRHOEA AND SPEED OF REHYDRATION.

As we know the incidence of diarrhoea is still very high in Egypt.

The lines of treatment of diarrhoea diverge from place to place and from physician to physician. According to the local medical practice in Egypt and most other developing countries, cases of diarrhoea are often treated with antibiotics and non specific antidiarrhoeals. This practice might be based on the old assumption that diarrhoea is always due to intestinal infection by bacterial pathogens. The true value of antibiotics in the treatment of bacterial diarrhoea is not known except in case of cholera.

So, studying the effects of antibiotics either positive or negative on the course of diarrhoea seemed to be of benifit.
So, we planned for this work with the following objectives:
To study the effect of antibiotics on the duration of diarrhoea and on the speed of rehydration.

Material:

Four hundred children with acute diarrhoea without evidence of malnutrition or concomitant serious illness were included in the study. They were randomized in 4 groups; each of 100 children. All groups were given O.R.S. Three groups of them were given antibiotics as follows:-

1. Group A. was given oral chloramphenicol
2. Group B. was given oral streptomycin
3. Group C. was given oral trimethoprim and sulphamethoxazol (1:5)
4. Group D. recieved no antibiotics.

Methods:

I. Clinical assessment including history taking and estimation of:

1. Dehydration score.
2. Time needed for rehydration.
3. The amount of ORS required.
4. The frequency and severity of symptoms.

5. The stool output, amount of vomitus and urine output.

The patient was considered fully hydrated when he fulfils the following:

- His dehydration score is 2 or less.
- His plasma osmolality returns to normal.
- His hematocrit is stable by serial readings.

The end point of diarrhoea is: formed stools and return of the number of motions/day to that before the diarrhoeal attack.

II. Routine laboratory tests necessary for assessment and follow up:

-Routine urine and stool analysis.
- Serum electrolytes (using flame photometery)
- Blood ph and pCO_2 (using blood gas analyser)
- Plasma osmolality utilizing the advanced osmometer.
- Hematocrit value (using microtechnique)

III. Bacteriologic and Virologic examination:

Stool specimens were examined for known intestinal pathogens i.e. Salmonella, Shigella, Enteropathogenio E.coli, Yersinia enterocolitica, Campylobacter and Vibrios.

Stool specimens were kept in the deep freeze to be studied for Rotavirus.

The work has been carried out except the tests for Rotavirus.

Analysis of the data and writing the final report will take the following two months.