SUMMARY

Infective peritonitis is a disease which still causes much sufferings and death despite the advances of medicine. It thus necessitated the evolution of some procedure which could, if not totally abolish, decrease the morbidity and mortality in such cases.

The concept of mechanical cleansing of the peritoneal cavity using lavage at the time of operation was first advocated by Nolan (1893) and Price (1905). Since the bacteria harboured in the pus in the peritoneal cavity are the main culprits causing morbidity and mortality, hence it gave the idea of mechanically lavaging the peritoneal cavity through a continuous drip of sterile solution post operatively.

Past studies have shown that the continuous lavage of the peritoneal cavity has succeeded in checking the morbidity and mortality rates to some extent. Various types of solutions and antibiotic combinations have been used for lavage so far with varying results.

The present study of continuous Antibiotic peritoneal lavage in post-operative cases of peritonitis conducted in Maharani Laxmi Bai Medical College and Hospital which dates from July 1987 to August 1988 was undertaken to:-
1) Evaluate the utility of continuous peritoneal
lavage in reduction of morbidity and mortality in
infective peritonitis.
2) Find out a suitable antibiotic combination for
continuous peritoneal lavage.
3) Note the complications of continuous peritoneal
antibiotic lavage, if any.

Forty males and twenty females constituted
the group of sixty patients included in this study. The
patients were divided into following two groups –

Group I – Control group – in whom laparotomy without
continuous antibiotic peritoneal lavage was
done.

Group II- Study group – in whom laparotomy with continuous
antibiotic peritoneal lavage was done.

The control group cases were treated in the
conventional manner i.e. exploratory laparotomy was per-
formed; the cause treated surgically and abdomen closed
without any continuous peritoneal antibiotic lavage.
Other supportive measures like fluid therapy, antibiotics
electrolyte imbalance etc. were taken care of in the
usual manner.

In the study group cases, apart from the
conventional method of treatment, continuous antibiotic
peritoneal lavage was carried out. Two sterile drainage
tubes (alternatively, Malecot's catheter) were used.
One was inserted in the hepatorenal space through which
the antibiotic solution was run, and the other was
placed in the pelvic cavity which drained the solution
that ran down after bathing the peritoneal cavity
contents. This was carried out for 24 - 48 hours till
the fluid in the drainage tube appeared clear, after
which the lavage was stopped.

The fluid used was normal saline and the two different
antibiotic combinations used in it were:

i) Crystalline penicillin and metronidazole
ii) Streptopenicillin and metronidazole

By this technique it was seen that the post
operative temperature range was much less in the study
group (treated with lavage) as compared to control group.
48% of patients in the study group had normal temperature
after 24 hours of operation as compared to only 12.5% in
the control group.

Recovery of post operative intestinal peri-
stalsis was much faster in the study group. 56% of the
patient in the study group regained bowel sounds by the
third post operative day as compared to only 18.7% in
the control group.
Post operative complications in terms of stitch abscess partial and complete wound dehiscence, faecal fistula and residual abscess were much less in the study group.

In the present study, continuous antibiotic peritoneal lavage successfully managed to reduce the mortality by more than half. In the study group mortality was 16.6% (5 patients died out of 30) whilst in the control group it was 46.6% (14 patients died out of 30).

Thus it is concluded that continuous antibiotic peritoneal lavage is a very useful and a simple procedure that has succeeded in reducing the morbidity and the mortality in cases of infective peritonitis to a significant degree. Also, it does not carry any risk of systemic complications like over hydration and antibiotic toxicity when carried out thoughtfully.

It abbreviates the hospital stay of the patient with consequent decrease in the expenditure by the patient for the management.