

only. Each of the patients was given massive doses of a mixture of cholera phages and the administration of the phage was continued till the cessation of diarrhoea or as long as the phage stock was available. The results show that such large doses of phage can produce an immediate marked reduction of vibrio count and sterilize the gut sooner than would normally be expected. They are also suggestive that such massive doses of phage is likely to produce a beneficial effect in the treatment of cholera.

Although the number of cases are few the findings are presented with a view to invite criticism and stimulate interest for further studies.

STUDIES ON CHOLERA TOXIN WITH ANIMAL MODELS INCLUDING RATS

**K.M.S. Aziz, A.K.M. Mohsin,
K.W. Hare, and R.A Phillips**

Culture supernatants and intracellular substances of vibrio cholerae has been shown to contain cholerae toxin, as demonstrated by various investigators. The assay of diarrhoea factor produced by vibrio cholerae was carried out in ligated ileal loops of adult Rabbits and in infant rabbit model. More recently it had been demonstrated that isolated ileal and jejunal loops in living dogs can be used for the assay of diarrhoea factor.

The aim of the present work was to find and standardise suitable animal model for the assay of cholerae toxin for study and purification of the later (toxin) and subsequent development of better and lasting vaccine against cholerae.

A method will be described for the preparation of a high titer cholerae toxin.

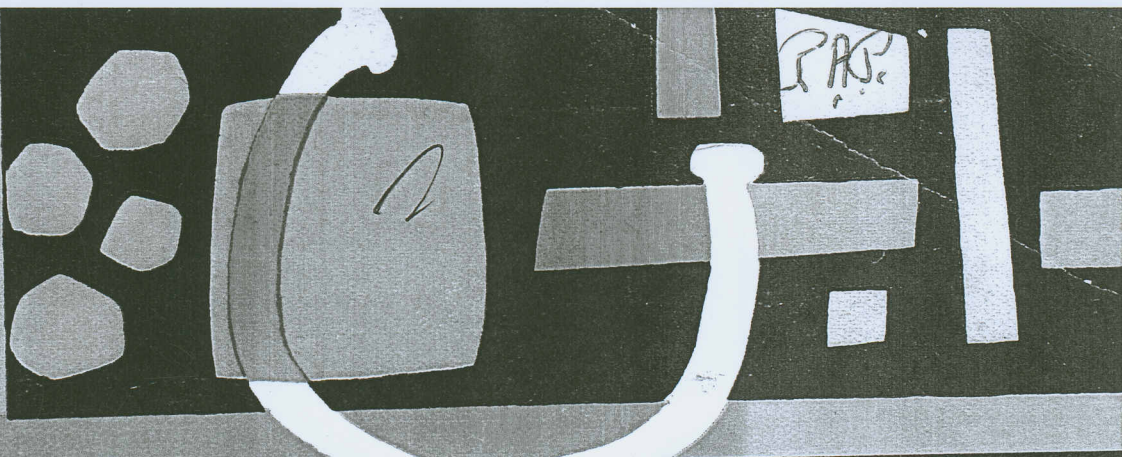
Attempts were successful in producing typical cholerae syndrome with cell free culture supernatant in adult Rhesus monkeys.

An eight hour assay system in ligated ileal loops of adult rabbits was standardised.

These animals need big space and long periods for breeding and maintenance which often becomes highly expensive and difficult to arrange.

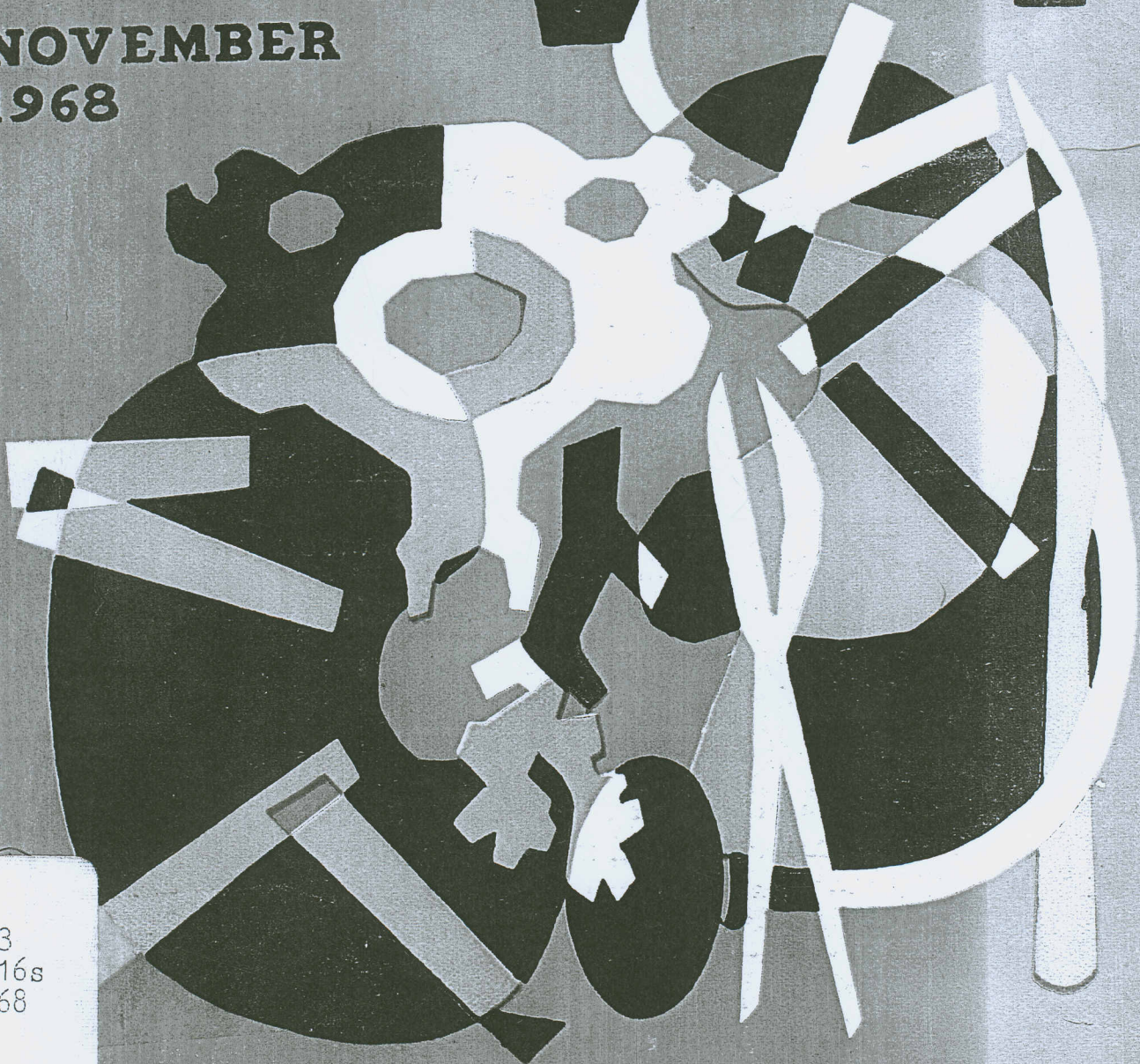
Thus shortage of animals is always a great handicap in the field of cholerae research. Concentrated attention was given to develop a small animal model, which could be bred, in huge number without much difficulty on short notice. With some modification of the existing techniques, the assay of cholerae toxin made successfully in adult rat small intestinal loops will be described in detail. Success with Rat model will greatly facilitate the progress on cholerae research.

PAKISTAN
MEDICAL
ASSOCIATION



SOUVENIR

NOVEMBER
1968



10th All Pakistan Medical Conference

W 3
A416s
1968