UNIMEZOL IN THE PREVENTION AND TREATMENT OF INFECTION OF FEMALE GENITAL TRACT

by

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Introduction

Role of anaerobic organisms in the causation of infections of the female genital tract is gaining importance day by day since its inception in the last decade. Gorbach *et al* (1973) was the first to isolate obligate anaerobes in about 70 per cent of cervical cultures. Since then many workers (Gorbach and Bartlett, 1974; Willis 1975) stressed the importance of non-sporing anaerobes causing infections of the female genital tract. Most of these anaerobes are commensals of the vagina and cervix but in suitable environment as created by obstetric or gynaecological surgery (breach in the mucosa, tissue damage, blood loss,) malignancy, irradiation and others, they cause specific infections, and it is now considered that most of the postoperative infections are due to these anaerobic organisms which are commensals of the female genital tract (Finegold 1967; Gorbach *et al* 1974; and others).

Recent reports show that metronidazole is highly active against a wide range of anaerobic bacteria in vitro (Davis *et al* 1964). In a comparative study with penicillin G, chloramphenicol, tetracycline, erythromycin, vancomycin, ampicillin and metronidazole against anaerobic organisms most commonly encountered in clinical infections, it was reported that only metronidazole had complete and consistent bactericidal activity against the anaerobes at a concentration easily attainable in the serum (Finegold and Suttar 1972). Extensive clinical experence with metronidazole in trichomonal, amoebic and other infections has shown that the drug is virtually non-toxic and free from side effects in human.

This study was carried out to evaluate the efficacy of metronidazole (Unimezol, Unichem Laboratories Ltd.) in the prophylaxis and treatment of anaerobic infections encountered in obstetric and gynaecological practice and to regulate the dose of Unimezol in our surroundings. This study was also thought worth while as there are some facilities in this hospital for doing anaerobic cultures.

Material and Methods

This study was carried out in the Dept. of Obstetrics and Gynaecology in the S.S.K.M. Hospital, Calcutta. Two hund-

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red patients requiring elective gynaecological surgery were chosen. Cases of almost identical types were taken into consideration to have a better comparison. Cases with features of obvious infection or other systemic disorders and those who had recent history of metronidazole therapy were excluded from the study. All the patients had routine preoperative investigations such as blood biochemistry, haemoglobin status, urine examination, etc. None of them had any gross hepatic, renal and haemopoietic disorders. All the cases had two doses of tetanus toxoid, haematinics, etc. pheoperatively. Routine and systemic anaerobic cultures from the genital tract in all the cases were not feasible. In those patients, who developed postoperative infections, anaerobic cultures were done.

The cases were placed at random in the following groups:—

GROUP-A: (Prophylactic group)—80 cases.

These patients received preoperatively a course of metronidazole (Unimezol). Forty patients who received Unimezol in dose of 200 mg thrice daily for 10 days comprises *Group-A*$_1$ and 40 cases who received Unimezol in dose of 400 mg thrice daily comprises *Group-A*2.

In the postoperative period they received routine antibiotics (Inj. Penicillin and Inj. Streptomycin) only.

GROUP-B: (Control Group)—120 cases.

These patients did not receive preoperative Unimezol.

These cases were again subdivided into the following sub-groups:—

*Sub-Group-B*1 (40 patients).

This group received only Inj. Penicillin and Inj. Streptomycin as a primary therapy—Group B1.

*Sub-Group-B*2 (40 patients).

This group of patients received Unimezol in a dose of 200 mg thrice daily for 10 days, starting from the 4th postoperative day along with conventional antibiotics as in Group-B1.

*Sub-Group-B*3 (40 patients).

This group of patients received only Unimezol postoperatively. 20 patients received Unimezol 200 mg thrice daily for 10 days and 20 patients received Unimezol 400 mg thrice daily for 10 days starting from the 4th postoperative day.

All the cases were studied regularly and the results of primary therapy were critically analysed on the 7th postoperative day, paying special attention to the signs and symptoms indicating development sepsis (Fever, persistence of pain, discharge etc.).

GROUP-C: (Complicated group).

Cases of Group 'A' and Group 'B' who had postoperative complications like persistent fever, pain, discharge or wound complications at the end of 7 days were classified under this group. This discharge was sent for culture and local measures were instituted. Twenty-three cases were encountered (4 from group 'A' and 19 from group 'B').

The cases were again divided into following sub-groups according to the secondary therapy as follows:

*Sub-group C*1—Broad spectrum antibiotics were started (8 cases).

*Sub-group C*2—Broad spectrum plus Unimezol started (8 cases).

*Sub-group C*3—Unimezol only was started (7 cases).

In all the sub-groups associated surgery was performed whenever necessary. Eight cases were placed in first two subgroups and 7 cases in the sub-group C3. The results of the therapy were again analysed after 3 days and 7 days.

Patients of Group 'C' who had dis-

Effect of Centchroman as an Ovulation Inducing Agent—Sandhya Maewal et al. pp. 579-586

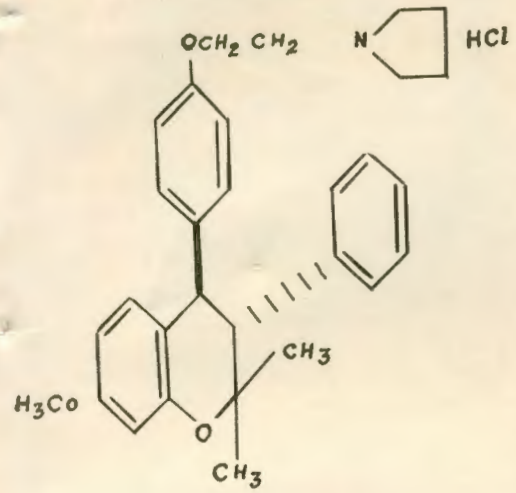

Fig. 1

Rupture Uterus due to Ovarian Cyst—Goswami et al. pp. 703-704

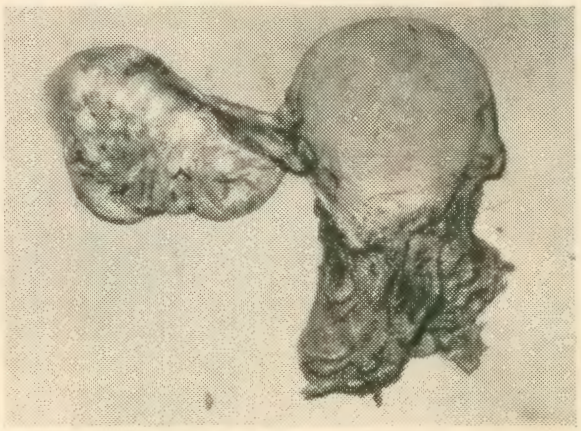

Fig. 1
Specimen showing left lateral rupture of the lower segment including cervix and the ovarian cyst on right side

Cervical Rupture—Bhutani pp. 710-712

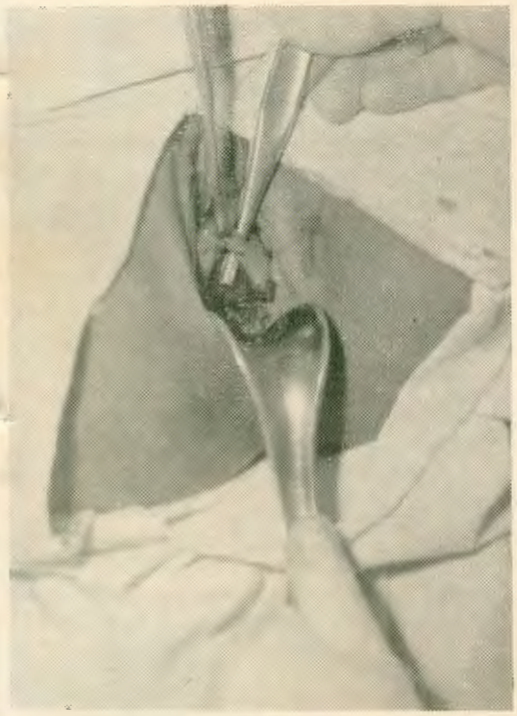

Fig. 1
Showing cervical rupture

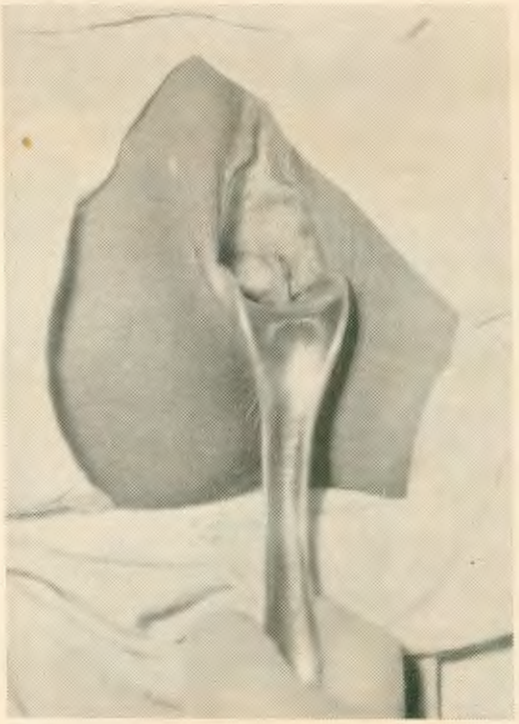

Fig. 2
Showing cervix after repair of cervical rupture

Hydatid Disease of Uterus and Ovary—Sarkar et al pp. 727-729

Fig. 1
Cut section of the uterus with hydatid cyst.

pp. 730-733

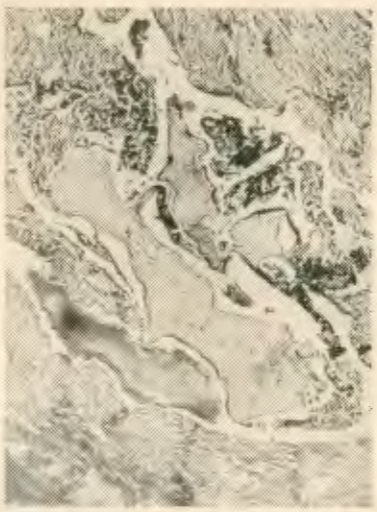

Fig. 1
Photomicrograph of the invasive mole showing trophoblastic cells invading the myometrium in sheets and individual cells, as well as with villi formation.

Management of Secondary Post Partum Haemorrhage—Dutta and Mukherjee pp. 640-643

Fig. 1
Picture shows polyp hanging at the left angle cf lower segment.

Gonadoblastoma Arising from a Gonad of Uncertain Origin—Das et al. pp. 674-676

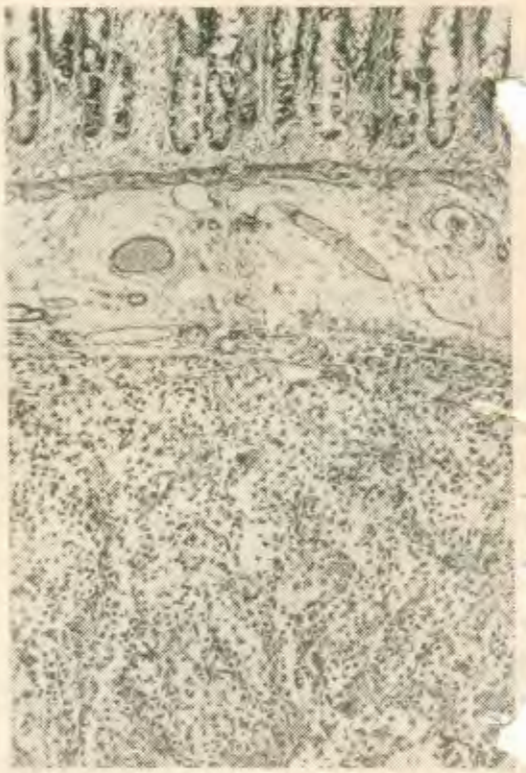

Fig. 1
Submucosa of the colon infiltrated by the tumour cells with similar characteristics (H & E x 80)

Endometriosis in Hysterotomy Scar—Ramesh et al. pp. 723-724

Fig. 1
Microphotograph showing invasion of skin by endometrial glands.

Perforation of Uterus with Copper "T"—Madan and Lal pp. 725-726

Fig. 1
X-ray photograph of the pelvis showing displaced Cu-T, with its vertical limb out of the uterine cavity.