

HOW SAFE IS LAPAROSCOPY

(A Personal Experience)

by

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My experience through one thousand one hundred and twenty-four consecutive laparoscopic coagulations performed through six years is presented. I have continuously modified the technique of pneumoperitoneum, premedication, local anaesthesia, position of the patient and method of identification of the tube, so as to make the procedure simpler, safer and quicker. In this paper, the changes in the technique and their outcome is analysed.

All the operations were performed by the author. All were done under local anaesthesia, using atmospheric air for pneumoperitoneum (Rao 1972, 1974) using double puncture technique and unipolar current.

The period of 6 years is divided into 3 phases. The first phase is from year 1971 to 1974 (December). The second phase is from January 1975 to February 1976, and the third phase is from February 1976 to December 1976. The number of cases in each is noted in Table I.

Changes in Each Technique

Local anaesthesia: The quantity of anaesthetic solution used and the depth to which it is injected has been gradual-

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TABLE I
Number of cases in each Phase

| Phase | Year | No. of cases |
|-------|---|--------------|
| I | Years 1971 to 1974 | 264 |
| II | Years 1975 to 1976 February | 437 |
| III | Years 1976 February to December 1976 | 423 |
| Total | | 1124 |

ly reduced without any disadvantage. In the third phase only 15 millilitres of solution was used and the subcutaneous tissues only infiltrated.

Premedication: Table II summarises the premedication adopted through 6 years.

The drugs used for premedication were gradually decreased without any remarkable change in the analgesia obtained. During the first and second phases there were instances of hypotension and 2 cases of cardiac arrest. In the third phase there have been no complications so far. Atropine injection was a routine in the third phase.

Pneumoperitoneum: Atmospheric air was used from the beginning. During the first two phases, abdomen was distended with unmeasured quantity of air till there was visible distension, whereas

TABLE II
Premedication

| Years | Premedication | Result |
|---|--|---|
| Phase I 1971 to 1974 (No = 264) | Tab. Chlorpromazene 50 mg. Tab. Phenergan 50 mg. Inj. Pethidine 100 mg I.M. (N. B.: In the year 1973 Pethidine was administered intravenously in the operating room) | Six cases of hypotension and one case of cardiac arrest (in the year 1973—case No. 191) |
| Phase II 1975 to 1976 (Feb.) (N = 437) | Tab. Chlorpromazine 25 mg Tab. Phenergan 25 mg. Inj. Pethidine 100 mg. I.M. | One case of Hypotension and one case of cardiac arrest (Case No. 701) |
| Phase III 1976 Feb. to December 1976 (N = 423) | Tab. Phenergan 25 mg. Inj. Pethidine 100 mg. I.M. Inj. Atrophine 0.4 mg I.M. | No complications. |

in the third phase only about a litre of air was used. The patient was requested to blow up her abdomen while passing the trochar. It is now found that Trendelenbergh position and uterine elevation with uterine elevator prevent bowels coming into the field of operation even when minimal air is used. Post-operative shoulder pain is almost nil in this series.

Operation Time, Position of the Patient and Uterus Elevation

The operation time has reduced from 20 minutes in the first phase to 7 minutes in the third phase. The position of the patient was also simplified. Lithotomy position was used for the first 300 cases after which straight supine position was adopted. Slight tilt of 30 to 40 degrees of the head is used in all cases except postnatal cases. No uterine elevator was used in postnatal and postabortal cases. The operation was found easier and simpler in postnatal cases (Rao 1976).

Complications

Minor complications like subcutaneous emphysema and shoulder pain were not uncommon in the first and second phases, but were very few in the third phase. The major complications were severe hypotension, cardiac arrest, bowel burn and tear of the mesentry. All major complications occurred in the first and second phases and none in the third phase. Table III summarises the major complications.

Discussion

The techniques of premedication, local anaesthesia, creation of pneumoperitoneum, the quantity of air used, the position of the patient have all been continuously modified so as to simplify the technique. The operation time has reduced from an average of 20 minutes to an average of 7 minutes. There were 9 major complications in the first phase, 2 in the second phase and none in the third phase, giving a complication rate of

TABLE III
Major Complications

| Complications | No. of cases | | |
|---------------------------------|---------------------|---------------------|----------------------|
| | Phase I (N=264) | Phase II (N=437) | Phase III (N=423) |
| Severe hypotension | 6 | 1 | Nil |
| Cardiac arrest | 1 (Case No. 191) | 1 (Case No. 701) | Nil |
| Coagulation of bowel | 1 (Case No. 50) | Nil | Nil |
| Tear of mesentry | 1 (Case No. 60) | Nil | Nil |
| Total | 9 | 2 | 0 |
| Complication rate per 100 cases | 3.40 | 0.46 | 0 |

3.40 and 0.46 per hundred cases in the first and second phases and no complications in the third phase. Cardiac arrest in 2 cases occurred in the first two phases within seconds after introduction of Verres needle. Atropine injection was not a routine during the first two phases. It is to be noted that there has been no complications with the coagulations ever since the 50th case.

Though the complications have considerably reduced with experience the stage has not yet reached to proclaim laparoscopic sterilisation as a procedure completely free from major complications. Laparoscopic sterilisation may be compared to travel in an aeroplane. It is quick and comfortable, requires technical skill; but very occasionally there may be a crash leading to serious accident. Abdominal surgical sterilisation can be com-

pared to travel by a bullock cart. It is not so quick nor so comfortable, but in the event of an accident, not so serious. Just as we accept air-travel with its risks, we accept laparoscopic sterilisation with its small but definite risk because its advantages outweighs the disadvantages.

References

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3. Rao, A. P. 1976: "Laparoscopic Electric Coagulation Easier in the Puerperium" 1st Inter Congress—Asian Federation of Obstetrics & Gynaecology, Singapore, April 1976.

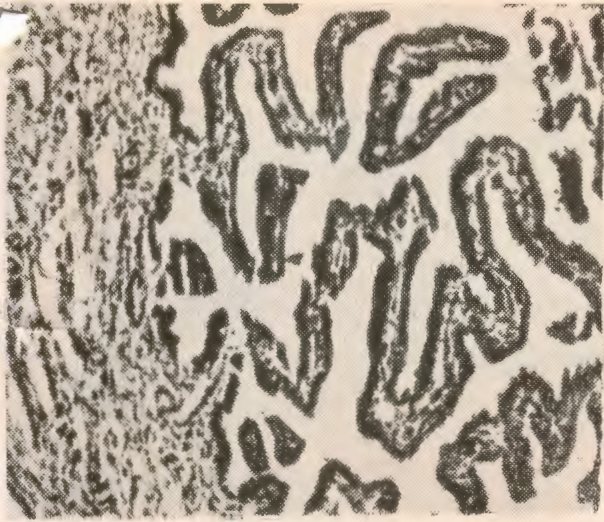


Fig. 1

Section showing presence of PAS positive material in the tubal epithelia—puerperal group. (PAS X 100)

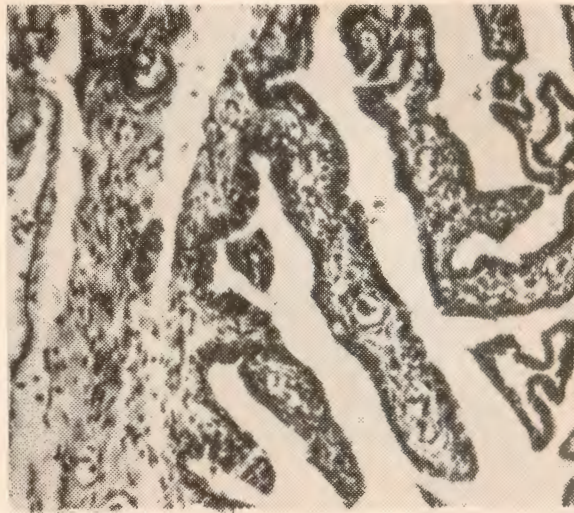


Fig 2

Section showing presence of diastase—resistant PAS positive material—puerperal group. (PAS after diastase X 100)

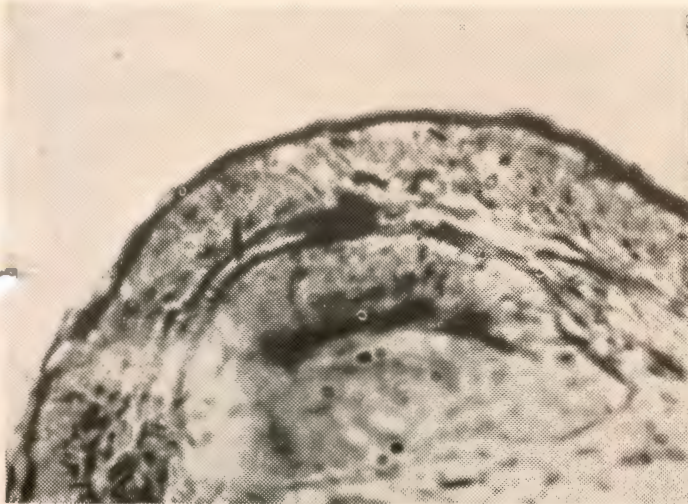


Fig. 3

Section showing alkaline phosphatase activity in the tubal epithelial cells (X 450).

Endolymphatic Stromal Myosis—Rastogi et al.
pp. 696-697



Fig. 1

Shows noncollagenous connective tissue resembling endometrial stroma in between the myometrium.

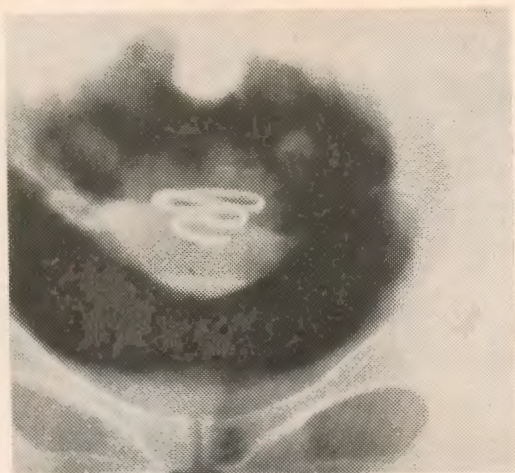


Fig. 1
Showing normal uterus, ovaries and ligaments.



Fig. 2
Shows infiltration of parametrium upto lateral pelvic wall on left side.



Fig. 3
Shows a mass in relation to the right half of the uterus due to a fibroid.



Fig. 4
Shows huge enlargement of left ovary which has overshadowed the normal right ovary.



Fig. 5
Shows bilaterally enlarged ovaries.
(Stein-Leventhal Syndrome)



Fig. 6
Shows hypoplastic uterus, hyperplastic ovaries
and normal tubes.

Reversal of Second and Third Stage of Labour— Murty and Quadros pp. 688-689



Fig. 1
Shows gross foetal ascitis, omphalocele with
limb deformity.

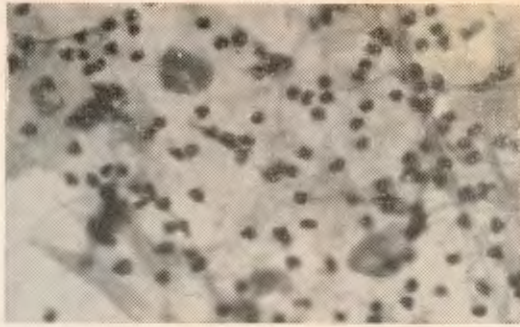


Fig. 1
Microphotograph showing trophozoite of *E. histolytica*. The background is full of leucocytes and erythrocytes.
(H.P.) (Papanicolou stain X 400)

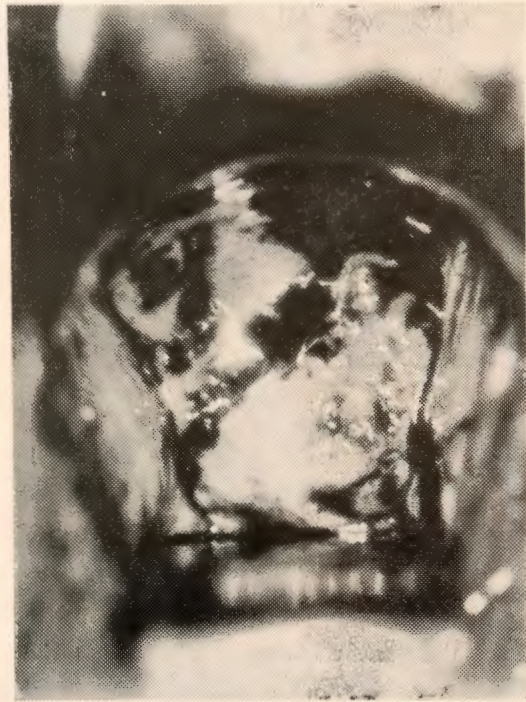


Fig. 1
Shows ulcerative growths arising from the lips of the cervix.