

## DIAGNOSTIC LAPAROSCOPY

(Review of 400 cases)

by

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Laparoscopic visualisation of female internal genital organs has opened a new field in diagnostic gynaecology. Four hundred patients with various complaints were investigated and laparoscopy was performed during three and half years period from Jan. 1975 to Aug. 1978 at B. Y. L. Nair General Hospital and T.N.M.C. Bombay 400 008.

### Material and Methods

In all the 400 cases detailed history, clinical examination and routine investigations were carried out. Special investigations like semen examination, sex chromatin study, 17 ketosteroids, ovarian biopsy etc. were carried out as and when indicated. The procedure was carried out under G.A. using Karl Storz, Laparoscope. Pneumoperitoneum was created using air, N<sub>2</sub>O, CO<sub>2</sub> in 114, 122 and 164 cases respectively. Ancillary procedures like patency testing, D & C and ovarian biopsy were carried out whenever required.

### Analysis of Data

In 80% of our cases laparoscopy was done for infertility. In 8 cases of bad ob-

stetric history laparoscopy was done to find out occult anatomical defects of the genital tracts. In 2 cases admitted for sterilisation where previous sterilisation was suspected (because of scars in posterior fornix) laparoscopy was done to confirm the same (Table I gives the indications for laparoscopy).

TABLE I  
Indications

Primary infertility	248	}	80%
Secondary infertility	72		
Primary amenorrhoea	12	}	11%
Secondary amenorrhoea	32		
Pelvic mass	16		
Chronic Abd. Pain	8		
B.O.H.	8		
Suspected ectopic	2		
To confirm T.L.	2		

In 40% of our sterility cases no abnormalities were detected on laparoscopy. Unilateral hydrosalpinx (25%) was commonest pathology detected in our series.

In 8 cases tuberculosis was suspected which was subsequently proved by endometrial biopsy. In 3 cases S.L. syndrome was suspected and the diagnosis was confirmed by ovarian biopsy. (Table II).

In 62% of our amenorrhoea cases (primary + secondary) no significant abnormalities were detected on laparo-

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TABLE II  
*Laparoscopic Findings in Infertility*

Findings	Primary Infertility	Secondary Infertility
Normal	104	26
Unilateral hydrosalpinx	67	18
Bilateral hydrosalpinx	32	10
Peritubal adhesions	22	10
T.O. Masses	6	4
Kochs	6	2
Fibroids	4	1
Endometriosis	4	1
S.L. Syndrome	3	Nil
Total	248	72

scopy. In 3 cases haematometra was present which was treated later on accordingly. Out of 5 cases of suspected S.L. Syndrome only 2 were proved on ovarian biopsy. (Table III).

TABLE III  
*Laparoscopy Findings in Amenorrhoea*

Findings	Primary Amenorrhoea	Secondary Amenorrhoea
Normal	3	24
Gonadal dysgenesis & streak ovaries	2	—
Hypoplastic uterus with normal tubes & ovaries	4	3
S.L. syndromes	1	4
Haematometra	2	1
Total	12	32

Majority of our cases with suspected pelvic masses revealed either bilateral tuboovarian masses or fibroid on laparoscopy, while endometriosis was encountered in 2 of our cases with pain in abdomen. (Table IV).

TABLE IV  
*Laparoscopic Findings in Pelvic Masses and Pain in Abdomen*

Findings	Pelvic Mass	Chronic Pain in abdomen
Normal	2	1
T.O. Masses	6	3
Ovarian Cyst	2	—
Fibroid/Adenomyosis	5	1
Endometriosis	—	2
Uterine Malformation	1	1
Total	16	8

Laparoscopic findings in B.O.H. cases revealed uterine abnormalities in 2 cases, while in 4 cases no pathology could be detected. (Table V).

TABLE V  
*Laparoscopy Findings in B.O.H.*

Findings	No.
Normal	4
Uterine anomalies	2
Fibroid	1
Hypoplastic uterus	1
Total	8

Ectopic pregnancy was confirmed on laparoscopy in two cases.

Commonest complication encountered in our series was post-operative shoulder pain. This was seen mainly in cases where air was used to create pneumoperitoneum. In 2 cases omental prolapse occurred through the incision at the time of withdrawal of laparoscopy cannula, which was repositioned immediately and suturing was done. (Table VI).



TABLE VI  
Complications

Shoulder pain	47
Pain in abdomen	28
Parietal emphysema	8
Omental emphysema	1
Omental prolapse	2
	86

### Discussion

Laparoscopy is most useful in full investigation of gynaecologic disorders. It allows detailed and accurate examination of the pelvic organs. With proper care it is a safe procedure with minimal complications provided patients are selected with care. However, in all patients likelihood of complications must be weighed against the potential positive value of findings. In most cases decision will be in favour of laparoscopy.

As seen in present series the most common indication for laparoscopy was infertility (80%). Frangenheim (1972) reported on 1967 laparoscopies of which 643 (38.4%) were for infertility. Out of 320 cases of infertility, some other abnormalities were detected on laparoscopy in 190 cases (59%) though clinically they all appeared to be normal. In Duighan *et al* (1972) series no clinical abnormalities were seen in 37.5% cases which were detected only on laparoscopy. Thus Siegler's statement that "endoscopic observation is usually three times more accurate than clinical impression" still holds true. In 8 cases laparoscopy revealed genital Koch's thus helping us in selection of cases for surgery and prognostic evaluation.

Out of 12 cases of primary amenorrhoea, 2 were with gonadal dysgenesis, 2 with haematometra, 1 with S.L. Syndrome and 7 with probably unstimulated ovaries. In Duighan *et al* (1972) series of 17 cases, 6 were gonadal dysgenesis, 4 were

haematometra and 7 were unstimulated ovaries.

Out of 32 cases of secondary amenorrhoea, 4 had suspected polycystic ovaries suggesting S.L. Syndrome while no abnormalities were detected in 24 cases.

As seen from present series laparoscopy was also found to be very useful in cases of pelvic masses and patients with pain in abdomen. In 14.5% cases in Duighan *et al* (1972) series, laparoscopy was done for pelvic masses and pain in abdomen. Varma and Murphy reported pelvic pain (41.9%) as the commonest indication for laparoscopy from St. George's Hospital, London.

Commonest complication encountered was post operative shoulder pain in almost 12% of our cases, especially when air was used for pneumoparitoneum. Not even a single mortality was encountered in our series.

### Conclusion

Thus judging from above findings one can say that today laparoscopy is most useful diagnostic tool in gynaecologic disorders with minimal complications. It is most effective technique for closing the gap between clinical evaluation and surgical-exploration.

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### References

1. Frangenheim, H.: Laparoscopy & Culdoscopy in Gynaecology Butterworths & Co., London, 1972.
2. Duighan, N. M., Hordan, J. A., Coughlan, B. M. and Logan, Edwards R.: J. Obstet. Gynaec. Brit. C'wealth. 79: 1010, 1972.
3. Varma, T. W. and Murthy, H.: J. Obstet. Gynaec. India. 28: 128, 1978.