

while parvicellular infiltration remained constant. These modifications must be considered as an expression of adaptation to which the intestinal mucosa is slowly exposed.

### BIBLIOGRAPHY

1. Gasparri F., Gerli P.: *Riv. Ost. Ginec.*, 17, 329, 1962. - 2. Costantini A., Sodi A., Gagliardi V.: *Arch. Ital. Urol.*, 5, 84, 63.- - 3. Begani R.: *Atti 31° Cong. Soc. Ital. Urol.*, 77, 58. - 4. Pezzuoli G., Ghiringhelli C., Pisani F.: *Min. Chir.*, 11, 224, 56. - Cavazzana P., Carando M.: *Arch. Ital. Urol.*, 27, 90, 54. - 6. Preto P., Parvis V., Lucarelli U.: *Arch. Ital. Anat. ed Emb.*, 60, 1, 55. - 7. Candiani G.B.: *Min. Gin.* 14, 132, 1962. - 8. Cao I., Stiba U.: *Quad. Chir.*, 4, 3, 61. - 9. Hayward R.H., Wakim K.G., Remine W.H., Grindlay J.H.: *Surg. Obst. Gyn.*, 112, 357, 1961. - 10. Gil-Vernet-Vila J.M., Gonsalvez R.: *J. Urol. Med. Chir.*, 63, 466, 1957. - 11. Deloyers L., Pepersack J.P., Parmentier R.: *J. Belge Urol.*, 22, 340, 54. - 12. Ducassou J.: *56° Ses. As. Fran. d'Urol.*, Paris 1962. - 13. Novi I.: *Gaz. Int. Med. Chir.*, 62, 2998, 57. - 14. Bjorkmann U.: *Acta Anat.*, 16, 191, 52. - 15. Bracci U.: *Chir. Urol.*, 1, 5, 59. - 16. De Dominicis R., Grechi G., Pelù G.: *Nunt. Rad.*, 28, 1008, 62.

## Laparoscopy in the diagnosis of acute pelvic pain: clinical appearances and pathognomonic pictures

by

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There is no doubt that some types of acute pelvic pain are difficult to diagnose clinically, and the gynaecologist often runs the risk of making diagnostic and therapeutic errors if he limits himself to the assessment (even an accurate assessment) of abdomino-pelvic findings and the results of conventional tests.

The occurrence of an acute genito-pelvic painful condition – even a pelvic pain in a chronically progressing gynaecological condition which has suddenly become an acute pain – may in fact present with subjective symptoms and localized pain which is often atypical and polymorphic. This occurs particularly frequently in the initial phase, with few objective signs, which may be doubtful or completely absent on clinical examination of the pelvis and genital region, and is often accompanied by unfavourable symptomatological conditions (adiposity, voluntary or involuntary abdominal resistance, etc.). In such cases there can be no substitute for laparoscopy as an examination; it will enable many of these clinical cases to be resolved, and will prevent incorrect treatment of the case, consisting either in waiting for the clinical picture to develop (which might aggravate it), or in surgical intervention in quite ordinary cases (the operation would then be out of proportion to the nature of the pathology). In this connexion the case material of the Obstetric and Gynaecological Clinic at Padua during the past 4 years (1972-75), which we have studied in retrospect, is of interest.

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## MATERIAL AND METHODS

During the past four years (1972-1975) at the Obstetrical and Gynaecological Clinic of the University of Padua, 786 laparoscopies were performed for various clinical indications. In 96 cases, the patients who underwent this examination had acute painful pelvic symptoms without any evident gynaecological findings.

Laparoscopy was thus carried out as a decisive diagnostic investigation, in the absence of any other valid factors (clinical or laboratory) that might lead to a diagnostic judgment and thus give some therapeutic indication.

The technique used in carrying out laparoscopy<sup>(1)</sup> did not differ greatly from that described some 30 years ago by Vecchiotti<sup>(6)</sup>. Operating, preferably, under a general anaesthetic, and using a Verres' needle, pneumoperitoneum was induced, with a quantity of CO<sub>2</sub> varying from one to four litres. The patient was then placed in the Trendelenburg position at about 45 degrees.

The pneumoperitoneum was maintained at a constant pressure of 20 mm Hg.

The Verres' needle was removed and an incision about 1 cm was made immediately below the umbilicus.

Insertion was made through this incision about three-quarters of the way into the abdominal cavity; the mandrel was then removed and the telescopic instrument introduced.

After having inserted the fibre optic tube, direct observation can begin. After the examination is over, the telescopic instrument removed and the pneumoperitoneum can be removed completely.

Finally the small skin incision is closed.

## RESULTS

In all the 96 patients studied, an exact diagnosis was made possible by laparoscopy, and this was confirmed in the cases in which laparotomy had been performed, due to the operative report.

The various pathological pictures observed were as follows:

- 22 cases of ovarian cyst (11 operated upon at once)
- 15 cases of multiple adhesion syndrome (3 operated upon at once)
- 14 cases of ectopic pregnancy (all operated upon at once)
- 9 cases of Morgagni's hydatid cyst (5 operated upon at once)
- 8 cases of haemorrhagic corpus luteum (5 operated upon at once)
- 7 cases of endometriosis (4 operated upon at once)
- 5 cases of adnexitis
- 4 cases of uterine fibromatosis (2 operated upon at once)
- 4 cases of pelvic varicocele
- 3 cases of pelvic tuberculosis
- 3 cases of ovarian carcinoma (all operated upon at once)
- 2 cases of appendicitis (both operated at once).

As will be seen from the detailed analysis of the case histories, in 49 cases the laparoscopic diagnosis was immediately followed by a laparotomy operation, while in the remaining 47 cases it proved possible to take medical or surgical therapeutic measures in due course, in relation to the state of the patient and the individual pathological condition.

The photographs (Figs. 1-9) illustrate the most significant pathological conditions.



FIG. 1 - Pelvic varicocele.

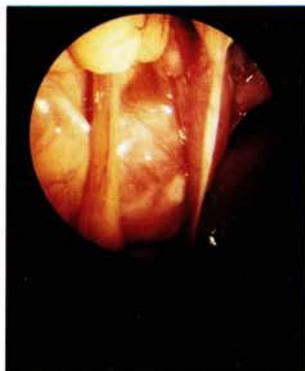


FIG. 2 - Omento-parieto-uterine adhesions.



FIG. 3 Tubal tuberculosis

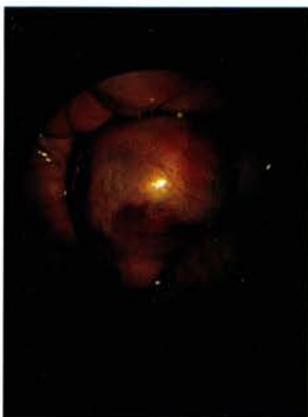


FIG. 4 - Tubal pregnancy.



FIG. 5 - Haemorrhagic corpus luteum.

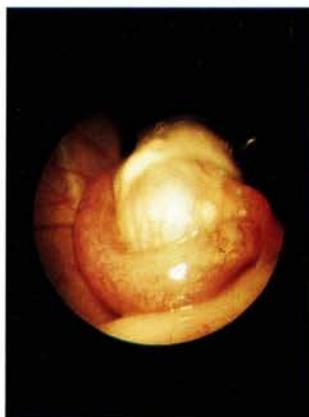


FIG. 6 - Sub-serous myoma; necrotic.



FIG. 7 - Morgagni's hydatid cyst.



FIG. 8 - Ovarian cyst.

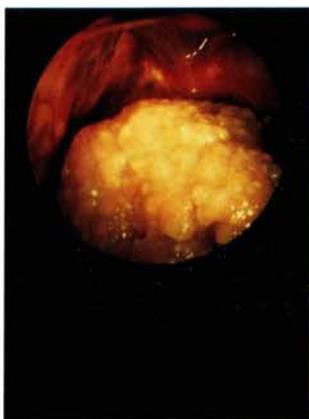


FIG. 9 - Papilliferous cystadenocarcinoma of the ovary.

## DISCUSSION AND CONCLUSIONS

Many authors assign a decisive role to laparoscopy in the diagnosis of acute pelvic pain.

Vecchietti, who reported 70 laparoscopy case-histories as early as 1947, at the Obstetric Clinic at Parma, stressed the value of laparoscopic investigation in some cases of acute pelvic pain, emphasizing the differential diagnosis between tubal pregnancy in the haemorrhagic phase and haemorrhage from the corpus luteum.

Lundberg *et al.* <sup>(2)</sup> emphasized the low correlation between the gynaecological findings and the real presence of pelvic pathology of any kind in patients with acute pelvic pain. In their case material, amounting to 47 patients with negative gynaecological findings, there was nevertheless a pathological condition in 24 of them (about 50% of false negatives), while in 46 patients with positive gynaecological findings, no pathological condition was present in 16 of them (about 34% of false positives).

Jacobson & Westrom <sup>(3)</sup> stated that laparoscopy was useful in practice, and in their own cases especially for arriving at a definite diagnosis in inflammatory pathological conditions of the pelvis.

Fear <sup>(4)</sup>, on the basis of his case-histories, found that only in 65% of cases of patients affected by pelvic pain could the diagnosis be confirmed by laparoscopy.

The findings that emerge from our own cases support this.

If it is considered, in fact, that only in 49 cases out of 96 (about 50%) was laparoscopy followed by immediate surgical intervention, and that operation was not necessary in the remaining 47 cases (about 50%), the high therapeutic risk that is run becomes evident, whether operation is decided upon the objective gynaecological findings, or whether a « wait-and-see » policy is adopted. It must be considered, however, in any objective evaluation, that the systematic application of laparoscopy as a clinical policy in all cases where the diagnosis is in doubt, which often occurs offhand due to the specially acute nature of some conditions, may have reduced the accuracy of the clinical diagnosis and may have falsified, even partially, the data obtained from our case material. It may be thought, indeed, that laparoscopy might have been employed even in cases in which there was no real problem of immediate surgical intervention, but only a problem of maximum diagnostic precision, for the purpose also of suitable medical therapy (for example, the differential diagnosis between genito-pelvic inflammation and pelvic varicocele, between specific and non-specific inflammation, between inflammation and endometriosis, etc.).

In conclusion, we consider, along with Vecchietti <sup>(6)</sup>, and with those who have followed up his basic research on laparoscopy in gynaecology, that this investigation, which causes very little trauma, does not interfere with the clinical course, but is very useful diagnostically; should be systematically used whenever gynaecological findings are uncertain; and among such cases in particular are those with acute pelvic pain.

## SUMMARY

Laparoscopy, which is a useful complement to diagnosis in gynaecology, appears to be essential in differential diagnosis and consequent therapy in cases of acute genito-

pelvic pain, where there is often little correlation between the objective signs and the symptoms, and in complex clinical conditions that are hard to interpret.

Some of the laparoscopic pictures, documented here, are of interest.

### BIBLIOGRAPHY

1. Dalla Pria S., Minucci D.: *Atti Soc. It. Obst. Gyn.*, 56, 68, 1974. - 2. Lundberg W.I., Wall Y.E., Mathers Y.E.: *Obst. Gyn.*, 42, 872, 1973. - 3. Jacobson L., Westrom.: *Am. J. Obst. Gyn.*, 105, 1088, 1969. - 4. Fear R.E.: *Obst. Gyn.*, 31, 297, 1968. - 5. Vecchiotti G.: *Quad. Clin. Ost. Gin.*, 2, 84, 1947. - 6. Vecchiotti G.: *Quad. Clin. Ost. Gin.*, 2, 110, 1947.

## Mammary scanning with <sup>67</sup>Ga

by

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<sup>67</sup>GA (1) has been suggested as a means to the diagnosis of mammary neoplasia. This is a gamma ray emitting substance with a brief half-life (78 hours), which is electively concentrated in neoplasms of the soft tissues (2,3). This radio-nuclide, which easily crosses the cellular membrane (4), becomes bound to the microsomal proteins of the neoplastic cells (5), but also to those of actively proliferating normal tissues (2,3,6) or at the site of inflammation (7,8,9). It has little affinity for necrotic tissues or those in a phase of sclerosis and involution.

### MATERIAL AND METHOD

An examination was made of 45 patients aged between 20 and 73 years, who had signs of mammary pathology. The clinical diagnosis was always checked histologically, and showed 14 malignant neoplasms of various clinical stages, and 31 benign neoplasms.

<sup>67</sup>Ga was administered intravenously at a dose of 2.5 mCi, independently of the body weight.

The first scanning was done after 48 hours, a second after 72 hours, and sometimes a third after 120 hours in case of doubt.

Whole body scanning was carried out whenever an intense uptake zone affecting the breast was present, in order to investigate possible metastases.

We used a sliding speed for the probe which was not very high (60-85 cm/min) and suppression of base of about 25-50%. The apparatus was used with an aperture adjustment of 130-320 KeV, so as to include about 43% of the radiation beam emitted by the <sup>67</sup>Ga.

Scanning was carried out with the patient supine, with the arms raised, so as to avoid interference due to accumulation of the radio-nuclide in the liver and stomach. The breast was also explored in lateral projection.

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