

Our experience in laparoscopic diagnosis and management in women with chronic pelvic pain

K. Papathanasiou, As. Professor; C. Papageorgiou, M.D., Ph.D.;

D. Panidis, As. Professor; S. Mantalenakis, Professor

1st Department of Obstetrics and Gynecology, Aristotelian University of Thessaloniki (Greece)

Summary

Chronic pelvic pain (CPP) still remains a serious problem in everyday gynecological practice. The aim of this study was to prospectively estimate the occurrence of pelvic varicosities in women with CPP and also to report our experience in the establishment of diagnosis and management of patients with CPP. We examined 264 premenopausal women aged 18 to 42 years referred to us for chronic constant pelvic pain of at least 6 months duration and with incomplete relief by previous treatments. The women were divided into 4 groups in proportion to their parity.

The results of our study demonstrate that pelvic congestion is a common finding in women with chronic pelvic pain especially in multigravidas. Based on our findings we support laparoscopic resetting of the uterus as an option for treatment in patients desiring maintenance of future fertility.

Key words: Chronic pelvic pain; Pelvic congestion.

Introduction

Chronic pelvic pain (CPP) without pathological findings at clinical examination still remains a serious problem in everyday gynecological practice. Moreover, further investigation by ultrasonography and laparoscopy often fails to demonstrate any common abnormalities to which the pelvic pain could be attributed. Over the years a vascular mechanism in CPP has been proposed by some investigators [1]. In addition, previous studies have shown that pelvic varicosities were found in 91% of women with otherwise unexplained CPP, but only rarely in symptom-free controls [2].

Many patients are referred to our clinic seeking assistance for CPP; therefore, we decided to address all cases of pelvic congestion systematically in those patients. Thus, the aim of this study was to prospectively estimate the occurrence of pelvic varicosities in women with CPP and also to report our experience in the establishment of diagnosis and management of patients with CPP.

Materials and Methods

Two hundred and sixty-four premenopausal women, aged 18 to 42 years (mean \pm SD: 29.8 \pm 7.3 years), were evaluated during the last five years in a tertiary care medical center for chronic constant pelvic pain of 6 months duration and with incomplete relief from previous treatments.

CPP was the main symptom in 232 cases whereas in the remaining 32 cases symptoms from the urinary tract, such as frequency and dysuria, were also observed.

The demographic profile of all patients was similar. Patients had undergone a baseline workup consisting of history, clinical examination, laboratory evaluation and ultrasonography of the

pelvis, the results of which were considered normal by the referring physician. In 32 cases with urinary symptoms an intravenous pyelogram (IVP) was also performed. A total of 97 patients (36.7%) reported previous pelvic surgery. Women were subsequently divided into four groups: group I consisted of 38 nulliparous women, group II comprised 65 women with one delivery, group III included 74 women with two deliveries and group IV consisted of 87 multiparous women. The mean age of women in these four groups was 27.4 \pm 6.8, 29.2 \pm 8.9, 29.8 \pm 7.3 and 33.4 \pm 9.1 years, respectively.

All women underwent diagnostic laparoscopy while they were under general anesthesia with a cuff endotracheal tube. In 175 cases there was a need for surgical intervention; operative laparoscopy or laparotomy followed according to the findings. Thus, using scissors, hydrodissection and blunt dissection we performed 97 laparoscopies and 12 laparotomies to lyse adhesions; also, 4 laparoscopic removals of ovarian cysts and 19 laparoscopic electrocauteries of endometriotic lesions were done.

In 43 cases of pelvic congestion, we operatively reset the uterus in 35 women under direct vision through laparoscopy.

Two small incisions were made on the skin 2-3 cm laterally from the midline at the level of the anterior superior iliac spine. A long narrow clamp was then placed into these incisions and through the rectus sheath it was diverted to the peritoneum which was finally opened. Then the round ligament on each side was grasped about 3-4 cm from the uterine junction with fine clamps, and with slight traction the ligaments were advanced to a position anterior to the rectus sheath. The round ligaments were then fixed to the rectus aponeurosis with silk size 0 sutures and the small incisions of the skin were subsequently closed. Four patients with severe pelvic congestion underwent total abdominal hysterectomy and bilateral salpingo-oophorectomy because menorrhagias also coexisted. Four patients in group I refused surgical treatment.

Patients returned for follow-up at 1 month and again at intervals ranging from 3 to 6 months. All information obtained during laparoscopy and follow-up was carefully recorded in patient files.

Revised manuscript accepted for publication May 18, 1999

Table 1. — *Laparoscopic findings in 264 patients with chronic pelvic pain.*

Findings	All patients N=264	Group I N=38	Group II N=65	Group III N=74	Group IV N=87
Pelvic adhesions	109 (41.3%)	9 (23.7%)	23 (35.4%)	37 (50%)	40 (45.9%)
PID	48 (18.2%)	14 (36.8%)	18 (27.7%)	9 (12.2%)	7 (8%)
Pelvic congestion	43 (16.3%)	4 (10.5%)	8 (12.3%)	9 (12.2%)	22 (25.3%)
Normal pelvis	31 (11.7%)	4 (10.5%)	9 (13.8%)	8 (10.8%)	10 (11.5%)
Endometriosis	19 (7.2%)	4 (10.5%)	4 (6.2%)	7 (9.4%)	4 (4.6%)
Ovarian pathology	9 (3.4%)	3 (7.9%)	4 (4.6%)	2 (2.7%)	1 (1.2%)
Uterine fibroid	5 (1.9%)	0 (0%)	0 (0%)	2 (2.7%)	3 (3.4%)

PID = ?

Table 2. — *Results concerning the occurrence of pain after surgical treatment in patients with chronic pelvic pain (CPP) and pelvic congestion*

Groups	No surgical treatment	Laparoscopic resetting of the uterus			Total abdominal hysterectomy and bilateral salpingo-oophorectomy		
		Pain disappearance	Pain reduction	No relief	Pain disappearance	Pain reduction	No relief
I (n=4)	4						
II (n=8)		4	3	1			
III (n=9)		3	3	2			
IV (n=22)		12	4	3			
Total (n=43)	4	19	10	6	3	1	

Results

Mean ages of women in all groups were similar except for group IV. Table 1 shows the laparoscopic findings in 264 patients with CPP who were included in our study. Thus, it is clearly demonstrated that the leading findings during laparoscopic evaluation were pelvic adhesions (41.3%) followed by pelvic inflammatory disease (PID) (18.2%) and pelvic congestion (16.3%). Moreover, the leading finding for group I was PID (36.8%), while for groups II, III and IV pelvic adhesions were the most common finding (35.4%, 50% and 45.9%, respectively).

Table 2 summarizes the results concerning the occurrence of pain after surgical treatment of patients with CPP and pelvic congestion. Thus, 29 out of 35 patients who had undergone laparoscopic resetting of the uterus, referred disappearance or reduction of the pain, while 6 patients had no relief. Moreover, 3 out of 4 patients who underwent total abdominal hysterectomy had referred pain relief.

Discussion

The results of our study demonstrate that pelvic congestion is a common finding in women with chronic pelvic pain especially in multigravidas, which is in agreement with other reports [2]. Moreover, our study has shown that laparoscopic resetting of the uterus effectively alleviates chronic pelvic pain due to venous congestion. Previous studies have revealed the benefits of other treatment such as medroxyprogesterone acetate [4, 5], dihydroergotamine [6] and oral contraceptive administration [7].

There are also studies on patients with chronic pelvic pain with no response to medical treatment [8] that underwent hysterectomy and bilateral oophorectomy and one year later the median pain score was zero. We agree with these findings as in our study the four women that underwent total abdominal hysterectomy had significant reduction or pain disappearance during the follow-up.

The mechanism of action by which the resetting of the uterus into the anterior position reduces the pain of pelvic congestion is not clear. There may be a direct effect to the ovarian veins, facilitating mechanically the blood circulation. In our study 82.9% of our patients who underwent laparoscopic resetting of the uterus described significant pain reduction or no pain at all after laparoscopy. We find these results significant and therefore we would recommend this treatment, especially in women who would like to maintain their fertility.

Adams *et al.* [9], found that in 56% of patients with pelvic congestion, polycystic ovaries were observed ultrasonographically. In our study, we could not demonstrate such a relationship, although all patients were subjected to a thorough ultrasound examination.

Conclusion

Total abdominal hysterectomy may be the solution for patients who have completed their families. However, our study supports the laparoscopic resetting of the uterus as an option for treatment of patients desiring future fertility.

We would like to emphasize the limitations of this study as there was no control group (i.e. women with tubal infertility). A prospective randomized study is needed to clarify this important issue.

References

- [1] Taylor H. C.: "Vascular congestion and hyperemia. Their effect on structure and function in the female reproductive system. I: physiological basis and history of the concept". *Am. J. Obstet. Gynecol.*, 1949, 57, 211.
- [2] Beard R. W., Highman J. H., Pearce S., Reginald P. W.: "Diagnosis of pelvic varicosities in women with chronic pelvic pain". *Lancet*, 1984, II, 946.
- [3] Editorial: "Pelvic congestion". *Lancet*, 1991, I, 398.
- [4] Reginald P. W., Adams J., Franks S., Wadsworth J., Beard R. W.: "Medroxyprogesterone acetate in the treatment of pelvic pain due to venous congestion". *Br. J. Obstet. Gynecol.*, 1989, 96, 1148.
- [5] Farguhar C. M., Rogers V., Franks S., Pearce S., Wadsworth J., Beard R. W.: "A randomized controlled trial of medroxyprogesterone acetate and psychotherapy for the treatment of pelvic congestion". *Br. J. Obstet. Gynecol.*, 1989, 96, 1153.
- [6] Reginald P. W., Beard R. W., Kooner J. S., Mathias C. J., Samarage S. O., Sutherland I. A., Wadsworth J.: "Intravenous dihydroergotamine to relieve pelvic congestion with pain in young women". *Lancet*, 1987, II, 351.
- [7] Drife J. O.: "The pelvic pain syndrome". *Br. J. Obstet. Gynecol.*, 1993, 100, 508.
- [8] Beard R. W., Kennedy R. G., Gangar K. F., Stones K. W., Rogers V., Reginald P. W., Anderson M.: "Bilateral oophorectomy and hysterectomy in the treatment of intractable pelvic pain associated with pelvic congestion". *Br. J. Obstet. Gynecol.*, 1991, 98, 988.
- [9] Adams J., Beard R. W., Franks S., Pearce S., Reginald P. W., Sutherland L. A.: "Pelvic ultrasound findings in women with chronic pelvic pain: Correlation with laparoscopy and venograph (abstract)". 1986, Proceedings of the 24th British Congress of Obstetrics and Gynecology, p. 80.

Address reprint requests to:
Dr. CHRISTOS PAPAGEORGIOU
Vasilisis Olgas 132
Thessaloniki 54645 (Greece)

HPV 2000

BARCELONA - July 23rd-28th, 2000

18th international papillomavirus conference

Preceded by: July 21st-23rd, 2000

12th Annual Meeting of the Spanish Association of Cervical Pathology and Colposcopy jointly
with the HPV Clinical Workshop (July, 22nd-23rd)

Venue: Palau de Congressos, Barcelona (Spain)

Preliminary List of Topics

Colposcopy course - Diagnosis and treatment of genital neoplasia - HPV diagnosis & therapy / utility in screening - Recurrent Respiratory Papillomatosis / Genital Warts - Epidemiology of HPV & Cancer: genital, oral cavity, skin & other - Immunology of HPV - Vaccine development / Vaccine trials - Transformation / Progression - Pathogenesis / Viral and host interactions - Transcription - Replication - Viral protein functions.

Scientific Secretariat:

18TH HPV CONFERENCE - DR. F. XAVIER BOSCH
Fax: +34 93 260 77 87 - E-mail: hpv2000@ico.scs.es

12TH CERVICAL PATHOLOGY & COLPOSCOPY - DR. L. M. PUIG-TINTORÉ
Fax: +34 93 451 09 51 - E-mail: info2000@aepcc.org

Conference Organizer:

MERCE FERRER: GRUPO PACIFICO
E. Granados 44 - E-08008 Barcelona (Spain)
Phone: +34 93 454 54 00 - Fax: +34 93 451 74 38 - E-mail: gp@pacifico-meetings.com