Laparoscopic evaluation and management of chronic pelvic pain during adolescence

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Summary

Chronic pelvic pain (CPP) is a common symptom and a difficult condition to manage especially during adolescence. The aim of this study was to evaluate the role of laparoscopy in the diagnosis and treatment of CPP during this period of life. From January 1993 to December 1997, 98 patients, selected from a group of 180 patients who were referred to our clinic underwent laparoscopy. In most cases (60%) no abnormalities were observed. Endometriosis was found in 25% of cases, followed by ovarian cysts 7%, parovarian cysts 3%, pelvic inflammatory disease 3% and adhesions 2%. Laparoscopic treatment was performed as indicated by laparoscopic findings. We conclude that laparoscopy is a valuable and effective procedure in the diagnosis and management of CPP in a selected group of patients.

Key words: Chronic pelvic pain; Laparoscopy; Adolescence.

Introduction

Chronic pelvic pain (CPP) is a relatively common disorder in adolescent women [1]. It is usually located in one or both lower adbominal quadrants and lasts for over six months [2]. Diagnosing the origin of CPP is often difficult because of the numerous pathological situations that can cause it (gynecological, orthopedic, urological, surgical and psychological diseases) [3-7].

The use of laparoscopy for the evaluation of undiagnosed pelvic complaints during adolescence provides a convenient minimally traumatic procedure. Laparoscopy has been applied since 1970 for the diagnosis and treatment of CPP. Nowdays it is also widely accepted and used in diagnosis and treatment of gynecological problems in adolescent women [8, 9].

The aim of our study was to evaluate the role of laparoscopy as a diagnostic procedure together with laparoscopic findings in adolescent women with CPP.

Materials and Methods

During a five-year period (1993-1997), 180 adolescent women with CPP, 16-19 years of age, were referred and examined in our Institution. All patients had a routine gynecological examination, pelvic ultrasound and any other examination that was considered necessary. Our of these 180 patients, 98 were subjected to laparoscopy. In 25 patients with CPP, diagnostic laparoscopy was extended to operative laparoscopy. The laparoscopic procedures were performed under general anesthesia and the pneumoperitoneum with 2-2.5 It. CO_2 was administered by an automatic Standard Stortz Laparoscopic Insulflator. Two punctures were used for diagnostic and three for operative procedures. The upper and lower abdomen were usually inspected for possible lesions causing CPP.

Results

The laparoscopic evaluation of the cases showed normal internal genitalia in 59 cases (60.3%), endometriosis in 24 cases (24.5%), ovarian cysts in 7 (7.2%), paraovarian cysts in 3 (3.0%), pelvic inflammation in 3 (3.0%) and pelvic adhessions in 2 (2.0%) (Table 1).

Operative laparoscopy was performed in 25 cases (25.5%) and laparotomy in one patient due to intraoperative bleeding. The therapeutic procedures followed are shown in Table 2. The most common laparoscopic interventions were cauterization of endometriotic foci (11 cases) resection of ovarian cysts (7 cases), parovarian cysts (3 cases) and adhesiolysis (2 cases) (Table 3). Some complications occurred during diagnostic or operative laparoscopy (Table 4).

Discussion

Evaluation and diagnosis of CPP in adolescent women is feasible through laparoscopy if indicated after clinical evaluation. In our group of 98 adolescent patients the laparoscopic findings were, according to our rates, endometriosis (24.5%), ovarian and parovarian cysts (10.2%), pelvic inflammation (3.0%) and pelvic adhesions (2.0%). The rate of patients with normal internal genitalia was 60.3%. According to other studies concerning women of reproductive age, the main causes of CPP were pelvic adhesions (31.5%), endometriosis (21.8%) and cases without abnormal laparoscopic findings (18.9-69.6%) [1, 6, 7, 10, 11].

Among the 60.3% of our patients who had no specific abnormality, 86.4% had CPP of unexplained etiology, while in the remaining 13.6% CPP was attributed to irritable colon, urethral syndrome, chronic cystitis, vascular and psychological disorders. According to other authors, these causes vary from 16-53.6% [3, 12, 13].

Revised manuscript accepted for publication February 1, 1999

Table 1. — *Laparoscopic findings in adolescent women with CPP*

Laparoscopic findings	No of cases	%
Normal internal genitalia	59	60.3
Endometriosis	24	24.5
Ovarian cysts	7	7.2
Parovarian cysts	3	3.0
Pelvic inflammatory disease	3	3.0
Pelvic adhesions	2	2.0
Total	**98**	**100.0**

Table 2. — *Management procedures followed in adolescent women with CPP*

Therapeutic procedures	No of cases	%
Diagnostic laparoscopy only	48	49.0
Operative laparoscopy	25	25.5
Conservative treatment after laparoscopy	24	24.5
Laparotomy	1	1.0
Total	**98**	**100.0**

Table 3. — *Type of operative laparoscopy*

Disease	Type of treatment	No of patients	%
Endometriosis	Cauterization	3	12.0
	Cystectomy	11	44.0
Ovarian cysts	Resection	7	28.0
Parovarian cysts	Resection	2	8.0
Pelvic adhesions	Adhesiolysis	1	4.0
	Fimbrioplasty	1	4.0
Total		**98**	**100.0**

Table 4. — *Complications observed during diagnostic and operative laparoscopy*

Complication	Diagnostic laparoscopy	Operative laparoscopy	No of cases	%
Postoperative shoulder pain	2	4	6	6.1
Nausea and Vomiting	3	4	7	7.1
Intraoperative bleeding	1	–	1	1.0
Sub-cutaneous emphysema	–	1	1	1.0
Total	**6**	**9**	**15**	**15.2**

The characteristics of CPP are often difficult to discern from cyclical or non-cyclical pain. Cyclical pain is usually expressed with dysmenorrhea, especially in adolescents. Constipation and dyspareunia are added in older women [1, 12]. This possible overlap is noted between characteristics of CPP and gynecological or abdominal pain, cyclical and non-cyclical and related or not to menstruation. The characteristics of CPP, as defined up to nowdays are: frequency of recurrence, cyclicity (intermittent or not), localization and duration [3, 13, 14]. In our patients the rate of intermittent cyclical CPP was 52.1% and 17.9% for the non-cyclical. Our findings contradict the aspect that CPP is non-cyclical pain [1, 3, 13].

Conclusion

CPP is quite common among adolescent women and there is still no adequate information about its prevalence. The etiology of CPP is obscure in the majority of the cases. Intermittent cyclicity is a common characteristic of CPP in adolescents. Laparoscopy is a valuable procedure to evaluate pelvic pathology as a cause of CPP with all the benefits of this operative methodology. Patients can be relieved of their problem and their quality of life is improved.

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