

# Analysis of 230 women with chronic pelvic pain assisted at a public hospital\*

## *Análise de 230 mulheres com dor pélvica crônica atendidas em um hospital público*

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### ABSTRACT

**BACKGROUND AND OBJECTIVES:** Chronic pelvic pain is prevalent, presents difficult treatment and has been poorly investigated. The objective of this study was to analyze 230 patients from the chronic pelvic pain ambulatory of Hospital das Clínicas, Federal University of Goiás.

**METHODS:** Cross-sectional and intervention study, from 2007-2011.

**RESULTS:** Mean age was 38.3±10.0 years. Most women were multigravida, married/cohabitating, attended elementary school, financially dependent, had an income of up to five minimum wages, normal body mass index, up to three children and sexual activity. Almost 30% had abortions, 15.8%, physical abuse and 11%, sexual abuse. Previous surgeries were common. Most had normal bowel and bladder function. Pain lasted over 16 days/month; it worsened in perimenstrual period and started, on average, 6.7 years before. In over 70% of cases there was a coincident event with the onset of pain, and conflict and/or trauma were the most commonly reported. Physical examination and ultrasound were normal in most of these women. Adhesion and/or endometriosis were found in almost 2/3 of 41 laparoscopies performed. There was an average reduction of 39.2% of the pain scale (3.1/7.9) with various adopted treatments (drugs, psychotherapy and laparoscopy)  $p<0.001$ . History of sexual abuse and abortion was associated with less pain reduction.

**CONCLUSION:** This study adds epidemiological and clinical information on women with chronic pelvic pain in Brazil. Clinical and psychotherapeutic treatments induced significant reduction of the pain scale between the first and last visit of patients. Laparoscopy did not potentiate the reduction of pain.

**Keywords:** Epidemiology, Pelvic pain, Psychotherapy, Signs and symptoms, Therapeutics.

### RESUMO

**JUSTIFICATIVA E OBJETIVOS:** A dor pélvica crônica é prevalente, apresenta tratamento difícil e tem sido pouco investigada. O objetivo deste estudo foi analisar 230 pacientes do ambulatório de dor pélvica crônica do Hospital das Clínicas da Universidade Federal de Goiás.

**MÉTODOS:** Estudo de corte transversal e de intervenção realizado entre 2007 e 2011.

**RESULTADOS:** A média de idade das mulheres foi de 38,3±10,0 anos. A maioria das mulheres era parda, casada/amasiada, cursou ensino fundamental, dependente financeiramente, tinha renda de até cinco salários mínimos, índice de massa corpórea normal, até três filhos e atividade sexual ativa. Aborto ocorreu em 30%, abuso físico em 15,8% e abuso sexual em 11%. A maioria sofreu cirurgia prévia e possuía função intestinal e urinária normais. A dor permanecia por mais de 16 dias/mês, piorava no período perimenstrual e começou, em média, 6,7 anos antes. Em mais de 70% dos casos foi percebido um evento coincidente com o início da dor, sendo conflitos e/ou traumas os mais citados. Os exames físico e ultrassonográfico foram normais na grande maioria dessas mulheres. Aderências e/ou endometriose foram encontrados em quase 2/3 das 41 laparoscopias realizadas. Houve redução média de 39,2% da escala de dor (3,1/7,9) com as várias condutas adotadas (farmacológica, laparoscópica e psicoterápica)  $p<0,001$ . História de abuso sexual e de aborto provocado associou-se a menor redução da dor.

**CONCLUSÃO:** Este estudo acrescenta informações epidemiológicas e clínicas sobre mulheres com dor pélvica crônica no Brasil. O tratamento clínico e psicoterápico promoveu redução significativa da escala de dor entre a primeira e a última consulta. Laparoscopia não potencializou a redução da dor.

**Descritores:** Dor pélvica, Epidemiologia, Psicoterapia, Sinais e sintomas, Terapêutica.

### INTRODUCTION

Chronic pelvic pain (CPP) is a non-cyclic pain lasting for six months or more, located in the anatomic pelvis, in the abdominal wall below the umbilicus or in the gluteus region, with enough intensity to interfere with daily activities and/or to require medical assistance<sup>1,2</sup>.

CPP is responsible for 10% of visits to gynecologists, 40 to 50% of gynecological laparoscopies and approximately 12% of all

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histerectomies<sup>3,4</sup>. It has direct impact on marital, social and professional lives of these patients<sup>4,5</sup>, which makes CPP a serious public health problem<sup>4,6</sup>.

There is still no consensus about its risk factors, as shown by conflicting studies results. Most commonly mentioned are: drugs or alcohol abuse, history of miscarriage, increased menstrual flow and dysmenorrhea, inflammatory disease and other pelvic diseases, previous abdominal surgery, low education level and psychological comorbidities, such as anxiety and depression<sup>4,7</sup>. Currently available data are limited, especially in developing countries. A study has reported general prevalence of 11.5% (147/1278) of CPP in females above 14 years of age in Ribeirão Preto, São Paulo (Brazil) and of 15.1% (127/841) in females in reproductive age<sup>4</sup>, similar to a North American study (14.7% - 773/5263 females aged from 18 to 50 years and surveyed by the Gallup Organization)<sup>1</sup>.

CPP management is focused on symptoms or on the diagnosis itself. Even when the diagnosis is specified, such as painful bladder syndrome, irritable bowel syndrome, endometriosis and adhesions, the response is frustrating<sup>3,6,7</sup>. Therapeutic armamentarium is composed of non-steroid anti-inflammatory drugs (NSAIDs), muscle blockers, hormonal contraceptives, amitriptyline and other antidepressants, anticonvulsants and psychotherapy<sup>8,9</sup>. Cognitive-behavioral therapy is an already accepted and recommended approach to treat females with CPP<sup>9,10</sup>.

Family constellation is a systemic approach developed by Bert Hellinger, which connects suffering/disease to unconscious processes as from exclusions, conflicts and traumas of personal and/or family life. In his book called "Essential is Simple", he addresses the use of family constellation for different symptoms/diseases, among them chronic pains syndrome<sup>11,12</sup>. Surgical treatment, especially with laparoscopy, has been indicated for diagnosis and treatment of endometriosis and pelvic adhesions<sup>1,2</sup>, but is being increasingly challenged<sup>13,14</sup>.

CPP ambulatory of the Gynecology Service, Clinicas Hospital, Federal University of Goiás (HC-UFG) aims at receiving, investigating and treating females with CPP. This study was carried out to obtain information about this population to better understand the reality of this group and to promote advances in their assistance, as well as at sharing such information with other woman health attention professionals and public health policies managers.

## METHODS

This was a cross-sectional and intervention study where pre-structured cards for the first and for return consultations were used, which were filled during consultations between February/2007 and May/2011, in the Chronic Pelvic Pain Ambulatory, HC-UFG. Recorded data were then tabulated to identify possible epidemiological, clinical and sonographic factors associated to CPP, in addition to the evolution of the visual analog scale (VAS) with indicated treatments.

Collected and analyzed variables were: age, color, marital status, education level, family income, financial dependence, body mass index (BMI=weight/height<sup>2</sup>), number of children, incidence

of miscarriages, history of physical and/or sexual abuse, sexual activity, sexual desire, orgasm, dyspareunia, history of sexually transmissible diseases, menstrual cycle and flow characteristics, surgical history, predominant pain site, pain score by VAS in first and last consultation, events coinciding with pain onset, pain duration, perimenstrual pain worsening, marital or family conflicts and family traumas, intestinal habits, urinary complaints, physical evaluation, ultrasound and laparoscopy findings, pharmacological and psychotherapeutic (cognitive-behavioral and family constellation) treatment. We have also evaluated the ambulatory follow-up.

In the HC-UFG ambulatory, drugs are chosen as follows: if pain worsens or there is perimenstrual mood oscillation, the initial choice is to induce amenorrhea with hormonal contraceptives; if patient has neuralgia, musculoskeletal pain, fibromyalgia, conflicts, traumas or depressive profile, we start with amitriptyline or other antidepressants when above conditions are superimposed. Anti-inflammatory drugs are indicated for pain crises. In addition, we always suggest psychotherapy (those available were cognitive-behavioral and family constellation therapies). Cognitive-behavioral therapy was applied in 6-8 individual sessions lasting approximately one hour, while family constellation was administered in a single individual or group session (lasting one to two hours).

Patients were considered in ambulatory follow-up when they had consultation in a period less than one year after medical record analysis. Consultations were quarterly scheduled and became semiannual if patients remained with pain scale less than or equal to 2. More than one year without return was considered loss of follow-up. Criteria for CPP ambulatory discharge was: pain scale  $\leq 2$  for at least one year without using any painkiller. Data were entered and analyzed by the Software Excel for Windows for subsequent analysis by statistical program, namely, Statistical Package for the Social Sciences – SPSS, version 17.0. Mann-Whitney test was used to check pain scale differences between first and last consultation in specific variables: miscarriage background, physical abuse, sexual abuse, laparoscopy, current treatment and psychotherapy. Kruskal-Wallis and Wilcoxon tests were used to check the existence or not of significant difference between first and last consultation with regard to variables: miscarriage and current treatment (Kruskal-Wallis); physical abuse, sexual abuse, laparoscopy and psychotherapy (Wilcoxon). Confidence level was 95%, that is,  $p < 0.05$  was considered significant. This study was approved by the Research Ethics Committee, HC-UFG, opinion 004/2007. Patients have signed the Free and Informed Consent Term (FICT).

## RESULTS

Initially, 271 patients were included, being that 13 patients were excluded due to incompleteness or loss of data, and 28 for not matching CPP criteria (exclusively cyclic pain in 21 patients and isolated dyspareunia in seven patients). This way, 230 patients were evaluated.

Mean age of females with CPP was  $38.3 \pm 10.0$  years. Most were mulatto, married or cohabitating, had completed elementary

school, received up to five minimum wages, were financially dependent and had normal BMI (Table 1).

Most patients had up to three children, sexual activity with desire and orgasm, in spite of dyspareunia. Almost 30% had miscarriages, 15.8% physical abuse and 11% sexual abuse (Table 2). Menstruation was at regular intervals in 57.8% of patients, with normal flow in 46.9% and 28% of them had amenorrhea. Previous pelvic surgeries were very common, especially tube ligation (50.4%) and Cesarean section (48.7%) followed by hysterectomy (14.3%) and ovarian cyst (11.3%), among others. Most patients had normal bowel function (58.2%), but 38.3% have reported obstipation and 2.6% obstipation and diarrhea, being that diarrhea alone was present in 0.9% of females. Urinary function was normal in 79.1% of cases.

Pain location, in decreasing order of frequency, was: left iliac fossa (38.7%), right iliac fossa (32.7%), hypogastrium (19.1%), low belly (17.0% and vagina (2.6%). Pain would last more than half month in 63% of cases and worsened in the perimenstrual period for 55.2% of cases. Pain had started, on average, 6.7±7.6 (0.5-54) years before, with mean VAS of 7.9±1.8 (2-10). There has been mean decrease of 3.1 VAS points between the first and the last consultation and follow-up time was 1.6±1.6 years (0-3.2).

In more than 70% of cases there has been an event coinciding with pain onset, being history of conflicts and/or trauma and obstetric events the most common (Table 3). Marital and/or family conflicts were present in approximately 40% of patients, while family traumas were present in more than half the cases (Table 4).

**Table 1.** Distribution of patients of the chronic pelvic pain ambulatory (n=230)

Variables	n	%
<b>Color</b>		
Caucasian	82	35.7
Afro-American	30	13.0
Mullato	118	51.3
<b>Marital status</b>		
Single	24	10.4
Married/cohabitating	167	72.5
Separated/divorced	32	14.0
Widow	7	3.1
<b>Education level</b>		
Illiterate	8	3.4
Elementary school	137	59.8
High school	77	33.4
College	8	3.4
<b>Per capita income (minimum wages)</b>		
Less than 1	79	34.4
1 to 5	147	64.0
More than 5	4	1.6
<b>Financial dependence</b>		
Partner	123	53.4
Others	22	9.4
Not dependent	85	37.2
<b>Body mass index</b>		
Low weight	8	3.3
Normal	134	58.3
Overweight	64	27.8
Obesity	24	10.6

**Table 2.** Obstetric and gynecological factors in patients with chronic pelvic pain (n=230)

Variables	n	%
<b>Number of children</b>		
0	30	13.0
1-3	167	72.6
3-4	33	14.4
<b>Miscarriages</b>		
No	163	70.9
Spontaneous	54	23.4
Provoked	13	5.7
<b>Physical abuse</b>		
Yes	36	15.8
No	194	84.2
<b>Sexual abuse</b>		
Yes	25	11.0
No	205	89.0
<b>Sexual activity</b>		
Yes	191	83.0
No	39	17.0
<b>Orgasm</b>		
Yes	143	62.0
No	87	38.0
<b>Dyspareunia</b>		
Superficial	32	14.0
Deep	150	65.0
Without dyspareunia	48	21.0
<b>Sexual desire</b>		
Yes	138	60.0
No	92	40.0
<b>History of sexually transmissible disease</b>		
Yes	41	17.8
No	189	82.2

**Table 3.** Event coinciding with chronic pelvic pain complaint onset (n=230)

Variables	n	%
None perceived	66	28.7
Conflict and/or trauma	65	28.3
Pregnancy/miscarriage/ child birth	51	22.2
Loss or departure of loved one	48	20.9
Tubal ligation	24	10.4
Hysterectomy	9	3.9

**Table 4.** Family issues of chronic pelvic pain ambulatory patients (n=230)

Variables	n	%
<b>Marital conflict (partner)</b>		
Yes	96	42.0
No	134	58.0
<b>Family conflict (excluding partner)</b>		
Yes	91	39.5
No	139	60.5
<b>Family trauma *</b>		
Yes	119	51.7
No	111	48.3

\*Abandonment by parents, child donation, early and/or tragic deaths, or death of loved ones with who they were in conflict.

Physical and ultrasound exams were normal for the vast majority of such patients (Table 5). In 41/230 (17.8%) laparoscopies performed, there were adhesions (34%), endometriosis (29%), normal pelvis (22%), and other findings in 15% of cases. Most common drugs used to treat CPP patients were hormonal contraceptives and amitriptyline (Table 6). There has been mean decrease of approximately 40% of VAS (3.1/7.9) with different approaches (pharmacological, laparoscopic and psychotherapeutic), being that history of sexual abuse and provoked miscarriage was associated to less VAS decrease (2.2 and 1.4, respectively). From evaluated drugs, hormonal contraceptive was related to further VAS decrease (Table 7). There has been adherence to psychotherapy by 25.2% of patients, being that 20.9% to family constellation, 2.6% to cognitive-behavioral and 1.7% to other modalities. There has been loss of follow-up in 26.6% of cases and 5.2% of patients had ambulatory discharge.

**Table 5.** Physical and pelvic ultrasound findings (n=230)

Variables	n	%
Physical exam		
Normal	194	84.3
Endometriosis	26	11.3
Other	10	4.4
Ultrasound		
Normal	160	9.6
Endometriosis (ovary and/or abdominal wall)	19	8.3
Small uterine myomas (<2cm)	15	6.5
Suggestive of functional ovarian cyst	13	5.6
Suggestive of hydrosalpinx	8	3.5
Other findings (paraovarian cyst, inclusion cyst, etc.)	15	6.5

**Table 6.** Pharmacological treatment at last consultation of patients with chronic pelvic pain (n=230)

Variables	n	%
Hormonal contraceptive	87	37.8
Amitriptyline	76	33.0
Non-steroid anti-inflammatory drugs	45	19.6
Other antidepressants	18	7.8
No drug	58	25.2

**Table 7.** Comparison of mean pain scale at first and last consultation with regard to independent variables of chronic pelvic pain patients (n=230)

Variables	Pain scale		p	Mean differences
	1 <sup>st</sup> consultation	Last consultation		
	Mean ± SD	CI 95%		
Pain scale	7.9 ± 1.8	(7.7-8.2)	<0.001 <sup>1</sup>	3.1
Physical abuse				
Yes	8.4 ± 1.6	(7.8-8.9)	<0.001 <sup>1</sup>	3.3
No	7.9 ± 1.8	(7.6-8.1)	<0.001 <sup>1</sup>	3.1
p value	0.135 <sup>3</sup>		0.818 <sup>3</sup>	
Sexual abuse				
Yes	8.1 ± 1.6	(7.5-8.8)	0.004 <sup>1</sup>	2.2
No	7.9 ± 1.8	(7.7-8.2)	<0.001 <sup>1</sup>	3.2
p value	0.789 <sup>3</sup>		0.116 <sup>3</sup>	
Miscarriage				
General	7.6 ± 1.8	(7.1-8.1)	<0.001 <sup>1</sup>	2.1
Spontaneous	7.6 ± 1.9	(7.1-8.1)	<0.001 <sup>1</sup>	2.4
Provoked	8.5 ± 1.2	(7.8-9.2)	<0.001 <sup>1</sup>	1.4
p value	0.176 <sup>2</sup>		0.085 <sup>2</sup>	
Laparoscopy				
No	7.8 ± 1.9	(7.5-8.1)	<0.001 <sup>1</sup>	2.9
Yes	7.8 ± 1.8	(7.2-8.5)	<0.001 <sup>1</sup>	3.2
p value	0.769 <sup>3</sup>		0.633 <sup>3</sup>	
Current treatment				
NSAID	7.2 ± 1.7	(7.1-8.2)	<0.001 <sup>1</sup>	2.6
Contraceptive	8.2 ± 1.7	(7.9-8.6)	<0.001 <sup>1</sup>	3.1
Amitriptyline	8.2 ± 1.5	(7.9-8.6)	<0.001 <sup>1</sup>	2.2
Other AD	8.7 ± 1.2	(8.1-9.3)	0.005 <sup>1</sup>	2.8
p value	0.154 <sup>2</sup>		0.086 <sup>2</sup>	
Psychotherapy				
CB	8.3 ± 1.6	(6.4-10.2)	0.066 <sup>1</sup>	4.7
FC	7.7 ± 2.0	(7.1-8.3)	<0.001 <sup>1</sup>	2.9
p value	0.938 <sup>3</sup>		0.422 <sup>3</sup>	

<sup>1</sup>Mann-Whitney (independent data); <sup>2</sup>Kruskal-Wallis and <sup>3</sup>Wilcoxon (paired data).

NSAID: non-steroid anti-inflammatory drug; CB: cognitive behavioral; FC: family constellation; AD: antidepressants.



## DISCUSSION

One objective of our study was to epidemiologically characterize 230 patients of the CPP ambulatory of HC-UFG-Goiania, since in Brazil there are few studies with this goal<sup>4</sup>. Patients had mean age of 38.3 years, most were mulattos, married/cohabitating, with low education level, low income, financially dependent on the partner and normal BMI, data similar to the Brazilian literature<sup>4,5</sup> and reality<sup>15</sup>.

It was observed that 87% of patients had children, being more frequent those having 1 to 3 children (72.6%), finding which is in line with previously published study<sup>4</sup>. We have also found history of miscarriage in 29.1%, similarly to the above-mentioned study, which has reported almost twice the number of miscarriages in the group without CPP (16.4%,  $p < 0.01$ ). In our study, 19.6% of miscarriages were provoked. We have also observed that females with history of provoked miscarriage had lower mean VAS decrease between the first and the last consultation (1.4 versus 3.1 of general mean). This data requires further understanding; however, we think that it might be associated to unconscious guilt expiation for the miscarriage not psychologically well processed (observed in psychotherapy).

There has been 15.8% of physical abuse and 11% of sexual abuse in the studied population. A CPP study group<sup>7</sup> has reported 3.5 times and 2.2 times more history of sexual and physical abuse, respectively, in females with CPP as compared to controls. In our study, patients who were victims of physical abuse had pain improvement similar to those not suffering this type of situation; however, victims of sexual violence had less pain scale decrease, which suggests more psychological sequelae.

From studied patients, more than 80% have referred active sexual life and approximately 60% have reported sexual desire and orgasm. However, almost 80% of females complained of dyspareunia. This symptom has been considered an independent factor associated to CPP<sup>4</sup>. History of sexually transmissible disease was observed in less than 1/5 of patients, although being considered a risk factor for CPP<sup>7</sup>.

Most patients have referred normal menstrual pattern, but there has been 55% CPP worsening in the perimenstrual period, while other authors<sup>2,5</sup> have reported prevalence above 80%. It is possible that the lower prevalence observed in this study be due to the fact that part of patients arrived to the ambulatory already in pharmacological amenorrhea induced by physicians referring them to the basic health system.

Abdominal surgeries have been pointed as factor associated to CPP, possibly due to adhesions caused by peritoneal cavity manipulation<sup>4</sup>. Our study has observed a high frequency of surgical pelvic cavity background, being laparotomic tubal ligation (50.4%) and Cesarean section (48.7%) the most frequent surgical procedures; we have also found adhesions in approximately 1/3 of laparoscopies performed in the service, data which are similar to the literature<sup>1,16</sup>.

When pain was evaluated, there has been mean onset of symptom until the first consultation of approximately seven years,

which is obviously a long period for those with pain. Such finding may be justified by the delay in looking for help or the difficult access to specialized medical assistance in the public service. While a study<sup>4</sup> has reported mean pain scale in the first consultation of  $5.8 \pm 2.3$  for CPP patients, in our study VAS value was  $7.9 \pm 1.8$ , but in the last consultation it was 4.8. This is VAS decrease of 3.1 points, which shows the importance of assisting CPP patients with clinical/psychotherapeutic measures which were effective to decrease pain scale.

As to pain location, there has been higher incidence (almost 49%) in the left iliac fossa, approximately 1/3 in the right iliac fossa, followed by hypogastrium and low belly (almost 1/5 of cases each) and just 2.6% in the vagina. No study was found in the literature evaluating such frequency, by pain predominance in LIF may be due to the high prevalence of irritable bowel syndrome and its relationship with CPP, as already observed<sup>1,17</sup>.

In our study there have been intestinal symptoms in approximately 40% of patients (38.3% reported obstipation, 2.6% obstipation and diarrhea, and diarrhea alone was reported by 0.9% of females). This study did not aim at characterizing irritable bowel syndrome diagnosis, since other criteria are needed in addition to pain for more than 12 weeks. A study with 648 females<sup>17</sup> has observed that 40% of CPP patients met irritable bowel syndrome criteria, while a different report<sup>8</sup> has referred 37% of gastrointestinal disorders. These figures are in line with the intestinal disorders, especially expressed as obstipation in our sample, which suggest a correlation of such data. Urinary symptoms were observed in 1/5 of patients, while a different study has reported 31% of urological disorders<sup>8</sup>.

More than 60% of patients have referred pain for more than half of the month, which suggests decrease in their quality of life (QL). Using SF-36, a study carried out in the same place of this study has observed that CPP patients had significantly lower QL scores in the domains of pain and social aspects<sup>5</sup>. Negative CPP effects on females' QL were also reported by other authors<sup>8,9</sup>.

More than 70% of patients were able to relate some major or traumatic event to onset of symptoms. CPP patients have eight times more psychosomatic symptoms than controls<sup>7</sup>. The presence of family issues in most CPP patients suggests the importance of using psychotherapy to treat these females, as already emphasized by the literature<sup>8,18</sup>. Further qualitative studies may probably better explain possible CPP triggering factors.

The fact that most patients in this study had normal physical evaluation (84.3%) and normal ultrasound (69.6%), or with incidental findings (small myomas, functional ovarian cysts, hydrosalpinx, in general asymptomatic in general population, very often in the opposite side from the side patients referred pain) shows the difficulty in demonstrating a plausible and convincing organic cause for CPP in patients in general. Findings, considered reasons for pelvic pain in laparoscopy, still lack epidemiological causality criteria and CPP seems to be more a somatofunctional syndrome, such as others: fibromyalgia, irritable bowel syndrome, chronic fatigue syndrome,

painful bladder syndrome and migraine, among others<sup>7</sup>. Diagnostic laparoscopy, performed in 41 patients (adhesion-34%, endometriosis-29% and normal pelvis-22%), has shown findings similar to those of a large study with 1524 females<sup>1</sup>. However, it is not always possible to consider alterations as the primary cause of CPP. Laparoscopy may have placebo effect in 50% of patients in three months and in 25% of patients in six months, with subsequent recurrence<sup>1</sup>. Lack of disease in pain topography and/or incidental findings such as small myomas, functional cysts, hydrosalpinx, in general asymptomatic, and comorbidities such as fibromyalgia, irritable bowel syndrome, migraine, chronic fatigue syndrome and painful bladder syndrome are very common<sup>1,7</sup>. In our study, patients submitted to laparoscopy had no further pain scale improvement as compared to those not submitted to laparoscopy. The treatment of adhesions with laparoscopic adhesiolysis for CPP seems to have no beneficial effect. This is endorsed by a multicenter study where 100 patients with CPP and pelvic adhesions were randomized for adhesion lysis (n=52) or non lysis (n=42), by videolaparoscopy and no difference in pain improvement was observed between groups<sup>19</sup>. A recent systematic review<sup>14</sup> points to the inefficacy of surgical approach to treat CPP. Laparoscopy is a surgery and, as such, poses risks and costs inherent to the procedure and should only be indicated after careful clinical and image evaluation. In our study, laparoscopy was indicated for less than 20% of patients, confirming current trend to decrease the indication of such procedure for CPP patients. Nogueira, Reis and Poli Neto<sup>3</sup> have suggested a decrease in laparoscopy indication to 5% of cases<sup>3</sup>. The understanding of visceral hyperalgesia mechanisms may favor the finding of drugs which may decrease CPP pain intensity<sup>20</sup>. Pharmacological treatment was used in ¾ of patients, in the following decreasing sequence: continuous hormonal contraceptives, amitriptyline, NSAIDs and other antidepressants. As compared to the first consultation, treatments have decreased mean pain intensity in 3.1 points.

Psychotherapy was applied to ¼ of studied patients, being family constellation the most frequently applied, followed by cognitive-behavioral therapy. Family constellation is offered by the service for more than seven years and this may be the reason for it having been more frequent in our study. There has been positive effect on pain decrease with both modalities, with significant pain scale decrease of 2.9 points between the first and last consultation of patients participating in the family constellation.

This approach has not yet been tested in the literature for CPP patients, being this the first report. Its mastermind has only published case reports using such process<sup>11</sup>. There has been even further VAS decrease in patients submitted to cognitive-behavioral therapy being that this has only been applied to six cases, which has not provided statistical significance. It has to be stressed that patients were very resistant to accept psychotherapeutic aid, inasmuch that ¾ have not accepted it although being already a recommendation of the literature<sup>1,2,8,18</sup>. This is possibly a factor impairing ambulatory discharge of such patients.

As observed in our study, the superiority of non-surgical

treatment (clinical/psychotherapeutic) may be considered in the care of females with CPP, since surgical treatment does not contribute to decrease VAS and adds more cost and morbidity. Other recent reports endorse this opinion<sup>9,14</sup>.

Only 5.2% (12 people) had ambulatory discharge (VAS≤2 for more than one year without medication). What was different in the treatment of such patients is still not understood. However, future qualitative studies may explain which was their positive deviation. The introduction of psychotherapy seems to be an indicator, but it is necessary to wait more time and to have a larger number of cases to confirm such hypothesis. Also, patients have to be open for such approach, probably increasing its effect. Convincing them of the need for psychotherapy is a challenge, as also reported by the International Association for the Study of Pain<sup>21</sup>. Current recommendations suggest multidisciplinary and biopsychosocial approaches to optimize results<sup>9,22</sup>.

## CONCLUSION

This study contributes for a better understanding of CPP, bringing more epidemiological and clinical information about these females in Brazil and, as a consequence, it may help the clinical management of such patients. Measures to make easier the access of CPP patients to specialized ambulatories (both for initial assistance and follow-up) are pertinent and necessary. The even higher decrease in laparoscopy indications and the strategies to attract patients to psychotherapy are challenges for the near future. This study is important and was justified by the high prevalence of CPP in Brazil. Sharing this information with other professionals and managers involved with women health attention may democratize the access of such patients to professionals qualified to deal with this important public health problem.

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