

# Evaluation of hysteroscopic findings related to chronic pelvic pain

## Avaliação de achados de histeroscopia relacionadas à dor pélvica crônica

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### Abstract

**Introduction:** Chronic pelvic pain (CPP) is a difficult condition to identify and many disorders are correlated. This study investigates the role of hysteroscopy as a complementary exam in the diagnosis of CPP. **Methods:** One hundred ninety-one medical records of women with indication to perform a hysteroscopy and presented CPP were reviewed. **Results:** The analysis showed abnormalities in 99 patients. Of these, more than 70% presented conditions that could cause CPP. Cervical stenosis and findings suggestive of adenomyosis were the most frequent occurrences. **Conclusions:** Hysteroscopy is useful to detect pathological conditions of the cervix and uterine cavity that may coexist with chronic pelvic pain.

**Keywords:** Pelvic Pain. Hysteroscopy. Diagnosis. Diagnostic Techniques, Obstetrical and Gynecological.

### Resumo

**Introdução:** Dor pélvica crônica (DPC) é uma entidade de difícil identificação e muitas doenças estão relacionadas a ela. Esse estudo investiga o papel da histeroscopia como exame complementar no diagnóstico de DPC. **Métodos:** Cento e noventa e um prontuários de mulheres com indicação de histeroscopia e que apresentavam dor pélvica foram estudados. **Resultados:** A análise mostrou anormalidades em 99 pacientes, sendo que mais de 70% possuíam alterações que poderiam causar ou estarem associadas a dor pélvica crônica; dessas, a estenose cervical e achados sugestivos de adenomiose foram as mais frequentemente encontradas. **Conclusão:** A histeroscopia é útil na detecção de patologias da cérvix e da cavidade uterina que podem cursar com dor pélvica crônica.

**Palavras-Chave:** Dor pélvica. Histeroscopia. Diagnóstico. Técnicas de Diagnóstico Obstétrico e Ginecológico.

### INTRODUCTION

Chronic pelvic pain (CPP) is defined as cyclic or acyclic pain located in pelvis which persists for six months or more, severe enough to cause functional disability and frequently requires medical or surgical treatment.<sup>1</sup> It is a difficult condition to identify and many disorders are correlated to that condition, like diseases of the gastrointestinal system, of the reproductive tract and of the urological structures.<sup>2</sup> The main gynecological diagnosis include adenomyosis, endometriosis, pelvic inflammatory disease, adhesions as well as intrauterine or cervical pathologies such as endometrial polyps<sup>3</sup>, endometritis<sup>4</sup> and cervical stenosis<sup>5</sup>.

The investigation of the gynecological causes of CPP is usually composed of clinical history and physical examination, transvaginal ultrasound and laparoscopy, thus hindering the diagnosis of intrauterine pathologies. Problems like adenomyosis, cervical stenosis, chronic endometritis, endocervical ossification, intrauterine adhesions, intrauterine bone structures, Müllerian malformations, polyps and

submucosal fibroids can be difficult to diagnose by ultrasound or laparoscopy, however, combined with hysteroscopic biopsy can greatly help in identifying these problems.<sup>6,7</sup>

The Hysteroscopy is a cost-effective procedure and have low risk of complications when executed by qualified professionals. It allows the visualization of the uterine cavity and thus the detection of abnormalities, so it may be useful as a complementary exam in the diagnosis of intrauterine pathologies related to CPP.<sup>8,9</sup>

### METHODS

Patients presenting chronic pelvic pain and submitted to hysteroscopy between January 2008 and October 2009 were investigated. Medical records of 191 women were reviewed in combination with other information like identification, pain duration, characteristic of pain, improvements and

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worsening factors, associated symptoms, hysteroscopy results, and also any other relevant data as surgery procedures and histopathological results.

The survey was conducted according to the ethical principles contained in the Declaration of Helsinki, and attended to the relevant legislation as the Resolution 196/96 and 466/12 of the National Health Council.<sup>16, 17</sup>

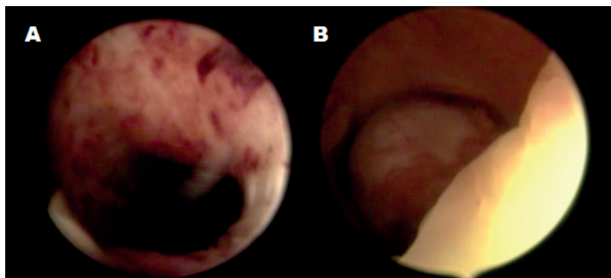
## RESULTS

Out of 191 tests, 99 (51.8%) presented abnormalities of which 27.2% were changes in the cervix (Table 1) and 71.7% were related to the uterine body. The main problem found was stenosis of the cervix (Figure 1-A) in 23 patients (23.2% of the total). Findings suggested that adenomyosis was set up in 19 patients (19.2%). Endometrial polyps (Figure 1-B) were found in 15 patients (15.1%). Some other findings were uterine synechiae (10 patients, 10.1%), atrophic endometrium (7 patients, 7.0%), cervical polyps (3 patients, 3.0%) and uterine malformations (3 patients, 3.0%). The less common finding was cervical atrophy that was observed in only 1 patient (1.5%).

## ATTACHMENTS

**Table 1.** Hysteroscopic findings related to chronic pelvic pain.

Pathological conditions of cervix uteri	N	%
Cervix stenosis	23	23.23
Cervical polyps	3	3.03
Atrophy of the cervix	1	1.01
Pathological conditions of corpus uteri		
Adenomyosis	19	19.19
Endometrial polyps	15	15.15
Submucous myoma	12	12.12
Uterine synechiae	10	10.10
Uterine malformation	8	8.08
Atrophic endometrium	7	7.07



**Figure 1.** Hysteroscopic appearance of the most common pathological conditions observed in patients with chronic pelvic pain. A- Cervical stenosis. B- Endometrial polyp.

## DISCUSSION

The etiology of chronic pelvic pain is still a challenge for doctors, probably due to the difficulty of establishing the correct diagnosis and appropriate treatment. Through direct visualization of the uterine cavity is possible to infer and reach an early diagnosis of the cause of chronic pelvic pain related with this anatomic region, improving quality of life of women with this condition. The main findings in the hysteroscopy exam, cervical stenosis, findings suggestive of adenomyosis and endometrial polyps, are directly correlated with chronic pelvic pain.<sup>4,6,10</sup>

Cervical stenosis is a problem that causes CPP6 and it has a strong association with endometriosis and/or pelvic inflammatory disease (which occurs approximately in 15% of the premenopausal American women). The retrograde menstrual flow through the fallopian tubes occurs in greater quantities when cervical stenosis is present. The decrease in the diameter of the cervical canal impedes the outflow of blood during the shedding of the epithelium. Thus, the accumulation of blood in the cavity added to menstrual cramps cause the reflux of material into the abdominal cavity. This hypothesis regards the development of endometriosis and its association with cervical stenosis.<sup>5</sup> Endometrial polyps are correlated with endometriosis too, studies indicate a possibility of high frequency of endometrial polyps in women with endometriosis, and that could explain symptoms of endometriosis, like endometriosis-related infertility. They also are correlated with vascular changes secondary to endometritis, disease that can curse with chronic pelvic pain.<sup>4,8</sup>

Hysteroscopy findings such as cystic hemorrhagic lesions, irregular endometrium, hypervascularization of the area or strawberry pattern are possibly associated with adenomyosis.<sup>11</sup> Some researches indicate that hysteroscopy has a positive predictive value for the histopathological findings in relation to intrauterine pathologies.<sup>12</sup> This is important, since findings suggestive of adenomyosis were the second occurrence of abnormal tests. Hysteroscopy is highly effective in diagnosing various causes of CPP, including adenomyosis, Müllerian anomalies<sup>13</sup>, chronic endometritis, retained fetal bones and endocervical ossification<sup>14</sup>, and intrauterine abnormalities like endometrial polyps, submucous myomas and recently cesarean-induced isthmocele.<sup>15</sup> Furthermore, hysteroscopy may play a primary role in the resolution of some of these conditions and because it can be executed safely in an office setting without anesthesia.

If we could perform a laparoscopy concomitantly with hysteroscopy we might probably diagnosis more diseases than we could do with hysteroscopy alone. There is some suggestion from the literature to indicate both exams when a suspect uterus comes with chronic pelvic pain.

## CONCLUSION

Abnormalities were founded in 51.83% of the hysteroscopy exams in patients with CPP. Regarding the tests, it was found that hysteroscopy is reliable to detect pathological conditions related to chronic pelvic pain, since it approaches problems directly correlated to the uterine cavity as a diagnostic and also as a therapeutic means.

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