



## CERVICITIS: THE LEVEL OF KNOWLEDGE OF THE MEDICAL INTERN OF A PRIVATE HIGHER EDUCATION INSTITUTION IN WESTERN PARANÁ



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### ABSTRACT

Cervicitis is an inflammation of the uterine cervix caused by sexually transmitted agents, predominantly by *Chlamydia trachomatis* and *Neisseria gonorrhoeae*, this condition is usually asymptomatic or sometimes manifested by nonspecific symptoms that may not draw the attention of those who are not properly instructed to identify them. This lack of diagnosis is extremely problematic, since left untreated, the patient can evolve with secondary complications such as: PID (pelvic inflammatory disease) or other disorders such as endometritis, infertility and HIV, as the woman's lower genital tract becomes much more susceptible to other infections. For this reason, the present study sought to evaluate the level of knowledge of medical graduates (interns) of a private higher education institution in western Paraná in relation to cervicitis, highlighting the importance of adequate and comprehensive medical training

**Keywords:** Cervicitis. Pap smear. Internal. Treatment. Complications.

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## INTRODUCTION

Cervicitis is an inflammation of the uterine cervix caused by sexually transmitted agents, predominantly by *Chlamydia trachomatis* and *Neisseria gonorrhoeae*, this condition is usually asymptomatic or manifested by nonspecific symptoms<sup>4</sup> that may go unnoticed in the eyes of those who are not well trained to identify them, in this case the patient can progress to PID (pelvic inflammatory disease) or other disorders such as endometritis, cellulitis and even HIV infection (FREITAS et al, 2008).

In view of this, it was found that there is a need to evaluate the medical students of the FAG University Center, with the general objective of identifying whether the gynecology discipline of the course has been satisfactory in the training of physicians capable of identifying and treating cervicitis, thus avoiding a possible bad evolution of the infectious condition. Thus, the present article sought to investigate the familiarity of inmates with the diagnostic criteria, classification and treatment of the pathology, to evaluate their knowledge about the main causes and risk factors associated with this type of infection, in addition to verifying whether they are aware of the clinical implications and possible adversities related to untreated cervical inflammation.

It is expected that at the end of the research, we will be able to demonstrate the effectiveness of the gynecology discipline of the FAG Center in training medical graduates to identify and treat cervicitis.

## THEORETICAL FRAMEWORK OR LITERATURE REVIEW

In outpatient clinics, the most frequent gynecological complaint among women is leucorrhoea (TAVARES et al, 2007), which is often a benign condition, however, it can be a sign of some pathology in the uterine cervix, so it deserves to be investigated. The cervix is lined by two epitheliums: squamous and columnar, the latter being the most affected by sexually transmitted pathogens such as *Chlamydia trachomatis* and *Neisseria gonorrhoeae*, predominantly related to the development of cervicitis (ORTIZ-DE LA TABLA et al, 2019), a condition that can remain asymptomatic or silent, causing only nonspecific symptoms, a factor that contributes to underdiagnosis and consequent complications of the disease.

In gynecological consultations, there are two exams that are frequently performed: specular and cytopathological collection of the cervix (colpocytological). According to some studies, it is possible to evaluate the presence and evolution of inflammation of the woman's lower genital tract through these, sometimes these tests also collaborate with the identification of causal agents (GONÇALVES et al, 2009).

That said, we effectively enter into our theme, since in the higher education institution where the research will take place, these exams are performed, for the most part, by the interns of the medical course, which makes them responsible for recognizing a condition of cervicitis and informing the preceptor of the outpatient clinic so that he can establish as soon as possible the most appropriate therapeutic conduct for the patient. Early diagnosis and treatment are important factors linked to preventing the evolution of the disease to complications, such as PID, pelvic adhesions, infertility, ectopic pregnancy and consequently helping to reduce public health expenditures, since in Brazil millions of reais are annually invested in antibiotics, surgeries and hospitalizations to treat these diseases secondary to cervical infection (GONÇALVES et al, 2009).

The clinical examination with a speculum can be performed in women of all ages, being useful for the inspection of the vagina and cervix, in addition, it is through the speculum that the colpocytology will be followed (FREITAS et al, 2008), an exam used mainly for the screening of cervical cancer in women over the age of 24, But as mentioned earlier, even though they are not their main function, these tests can help in the diagnosis of other pathologies and microorganisms responsible for triggering cervicitis.

Although cervicitis is asymptomatic in 70% to 80% of the cases, when present, the symptoms are very similar to those of vaginitis, such as dyspareunia, pruritus, dysuria and dysuria. 2021).

## TREATMENT OF CERVICITIS

Once the clinical diagnosis is concluded, it is recommended that treatment be initiated, whether empirical or targeted, to choose which line to follow, it is necessary to take into account the following factors: age, epidemiology, and availability of rapid tests capable of identifying the etiological agent (ORTIZ-DE LA TABLA et al, 2019).

### Empirical treatment

So, in women considered to be at high risk, that is, under 25 years of age, with new or multiple partners, unprotected sexual intercourse and/or a partner diagnosed with STIs, who have recently undergone cervical barrier breaking, and others (FREITAS et al, 2008), the correct thing is to carry out empirical treatment, as the main pathogens related to cases of uterine cervix infection are *C. trachomatis* and *N. gonorrhoeae*, The medications used should cover both.

### **Treatment of Chlamydia Cervicitis**

Administer Azithromycin 1g, orally, single dose or Doxycycline 100 mg, orally, twice a day for seven days (proscribed in pregnant women).

### **Treatment of Gonorrhea Cervicitis**

In uncomplicated infections, it is recommended to treat with ceftriaxone 500 mg, intramuscular, single dose in association with azithromycin 1g, orally, single dose.

### **Treatment of cervicitis due to disseminated gonorrhea**

Use Ceftriaxone 1g, intramuscular or intravenous, once a day for at least seven days and associated with Azithromycin 1g, orally, single dose.

## **METHODOLOGY**

This research was developed at the Assis Gurgacz Foundation University Center, Cascavel-PR campus, after approval by the research ethics committee number 6.335.633/2023. Qualitative procedures were used, framing the research in the descriptive method. It is a survey, with field study and inductive approach.

Data collection took place between the months of July and November 2023, through bibliographies, articles, and a structured questionnaire based on the five-point Likert scale developed by the researchers, which was applied in person to medical interns at the FAG Center, that is, those who were attending the 90, 100, 110, or 120 period and who felt comfortable answering it.

The researchers were also in charge of preparing and collecting the signatures of the Informed Consent Form (ICF) related to the research, as well as reassuring the participants, ensuring that all their personal information would be kept confidential, while the other data collected would be presented anonymously in this article.

## **ANALYSIS AND DISCUSSION OF THE RESULTS**

### **ANALYSIS OF THE DATA COLLECTED THROUGH THE QUESTIONNAIRE**

Table 1 - Description of the course period and whether the gynecology internship has already been attended among medical students participating in the research (n=107)

Course Period	n	%
9th	33	30,8%
10th	33	30,8%
11th	24	22,4%
12th	17	15,9%
Have you attended (fully or partially) the Gynecology internship?		
No	25	23,4%
Yes	82	76,6%

Source: Authors (2024)

Analyzing table 1, it is noted that the questionnaires were answered by 107 students, most of whom (76.6%) had already attended the gynecology cycle in the internship, thus collaborating with the highest quality in the research results.

Table 2 - Description of the answers of the medical students participating in the research

What is the importance of the content presented in the theoretical classes of the gynecology discipline for your learning	n	%
Very important	64	59,8%
Important	28	26,2%
Moderately important	12	11,2%
Unimportant	2	1,9%
Nothing important	1	0,9%
What was the use of the practical classes of the gynecology discipline for your learning?		
Very useful	64	59,8%
Useful	25	23,4%
Moderately useful	11	10,3%
Not very useful	7	6,5%
Nothing useful	0	0%
What is the level of knowledge in relation to the Pap smear test (preventive)?		
High Level of Knowledge	11	10,3%
Adequate Level of Knowledge	69	64,5%
Moderate Level of Knowledge	22	20,6%
Low Level of Knowledge	4	3,7%
No knowledge	1	0,9%
How did you get knowledge about the Pap smear?		
Theoretical Class	45	42,1%
Practical Class	72	67,3%
Bibliography	23	21,5%
Internet	1	0,9%
Other	4	3,7%
During gynecology internship, how often do you usually collect the Pap smear		
Very often	9	8,4%
Frequently	32	29,9%
Occasionally	44	41,1%
Rarely	16	15%
Never	6	5,6%
Do you know what cervicitis is?		
Yes	105	98,1%
No	2	1,9%
How did you get knowledge about cervicitis?		
Theoretical Class	88	82,2%
Practical Class	24	22,4%
Bibliography	11	10,3%
Internet	7	6,5%
Other	1	0,9%
What is the level of knowledge regarding the risk factors and etiology of cervicitis?		
High Level of Knowledge	11	10,3%
Adequate Level of Knowledge	55	51,4%
Moderate Level of Knowledge	33	30,8%
Low Level of Knowledge	7	6,5%
No knowledge	1	0,9%

Source: Authors (2024)

Table 2 represents the self-perception of each of these students in relation to the questions to which they were submitted. It is noteworthy that in some of the questionnaires, there was more than one answer to the questions related to how they obtained knowledge in relation to the Pap smear test (preventive) and cervicitis, totaling a number of answers greater than 107.

Following the analysis on table 2, when asked about the importance of the content taught in the theoretical classes for their learning, only 1 inmate did not consider it important and 2 qualified it as of little importance. Regarding the usefulness of practical classes in learning, 7 inmates said they were of little use. However, in both questions, more than 50% of the students participating in the research considered the classes very important and very useful, showing that the content worked in the classroom and in the students' daily lives, within the UBS and hospitals, has been sufficient for the construction of good learning.

Regarding the Pap smear test, 64.5% of the inmates considered to have an adequate level of knowledge about this test, with regard to how this knowledge was acquired, most reported having been through practical classes (67.3%), followed by theoretical classes with 42.1% of the answers and bibliography with 21.5%. These data highlight the importance that internships have in the teaching of medical students, however, only 29.9% of the students stated that they perform the Pap smear test frequently during the gynecology cycle, revealing that this practice should be more encouraged by the preceptors.

When asked about the understanding of cervicitis, 98.1% of the students said they knew what it was, among these, 82.2% reported having learned about this infectious condition during the theoretical classes and with regard to the self-perception of the level of knowledge of these inmates regarding this condition, only 8 negative answers were obtained, that is, low or no knowledge on the subject, while more than 80% of them classified themselves at a moderate or adequate level of knowledge. These are promising numbers in the direction of training these students to diagnose and treat inflammation in the uterine cervix.

## FINAL CONSIDERATIONS

Considering that, as previously described, cervicitis is underdiagnosed due to its nonspecific manifestations and even asymptomatic, it is difficult to be seen routinely in the outpatient clinics where the inmates are interning. However, based on the data collection carried out, it was evident that it is in practice that they learn to perform the patient's inspection and collect the diagnostic tests, in addition to becoming familiar with the

recommended treatment schemes, in addition to this, the data demonstrated that the theoretical content taught provides a good basis for the students in relation to this pathology.

That said, the numbers presented by the research lead us to conclude that the gynecology discipline of the medical course at the FAG University Center is being satisfactory in the training of general practitioners able to recognize and treat cervicitis, as well as its triggers and possible complications.

Thinking about further improving the transmission of teaching, a possible measure to be implemented would be to increase the regularity with which teachers carry out case discussions, in order to interconnect practical and theoretical classes, in addition to instigating students to seek information beyond the classroom. In addition, interns should be encouraged by their preceptors to examine patients and collect Pap smears more frequently. Thus, it is expected that the discipline of gynecology and the medical course will continue to thrive for the best professional alignment of future doctors.

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