



Review article

Semiologic differences and primary dysmenorrhea

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ABSTRACT

Dysmenorrhea is a condition that manifests itself in women before, during, and after menstruation, and it is accompanied by very intense pelvic pain. Moreover, women experience moderate to intense menstrual cramps year after year, decreasing their quality of life. The purpose of the study was to establish semiological differences associated with primary dysmenorrhea. Women who start their menstrual cycles with this symptomatology assume that it is normal and that they do not need specialized medical assistance. Medical professionals have established general practice guidelines on clinical disorders. However, there are no specific recommendations for the menstrual cycle that can effectively support the prompt diagnosis and treatment of primary dysmenorrhea, particularly at 3870 msnm. The uniqueness of our research is that semiological distinctions can change depending on height.

1. Introduction

Primary dysmenorrhea is a condition defined by severe abdominal or pelvic pain that coincides with the menstrual cycle [1]. The pain begins either a few hours before or after the start of menstruation and lasts up to 3 days, with the most intense pain between 48 and 72 h [2]. Moreover, the pain is associated with a high production of prostaglandins, accompanied by contractions in the myometrium and vasoconstriction, producing ischemia in the tissues, which gives rise to pain [3].

Predominantly, the pain occurs in the suprapubic area, radiating to both thighs and/or to the lumbosacral region, sometimes accompanied by nausea, vomiting, diarrhea, and headache [4].

Pelvic pain beginning at the menarche, or rapidly within 6 months, is suspicious for obstructive malformation of the genital tract [5]. Plasma concentrations of antidiuretic hormones or vasopressin are higher in women with primary dysmenorrhea [6].

Two types of dysmenorrhea are identified, mainly functional or primary if they occur spontaneously in the absence of gynecological abnormalities [7]. However, it is necessary to establish the differential diagnosis with deep endometriosis, due to its less common location [8]. The findings are complex and the condition can be diagnosed late due to non-specific symptoms, and the physical examination may not be able to separate it from other etiologies [9]. The most common clinical signs of endometriosis are menstrual irregularities, chronic pelvic pain, dysmenorrhea, dyspareunia, and infertility. Unlike secondary dysmenorrhea, primary

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dysmenorrhea has no known etiology [10].

However, myometrial, neurogenic, endocrine, vasoconstrictor, allergic, and psychosomatic theories warrant further investigation [11] Studies also demonstrate an emotional factor association, such as mood swings [12].

furthermore, numerous authors agree that primary dysmenorrhea can vary, ranging from mild to intense [13].

Recent studies have highlighted that dysmenorrhea is associated with endometriosis and potentially microbiological agents that trigger asymptomatic inflammatory processes and produce acute infections in the eutopic endometrium. A compromised immune system would allow the presence of endometrial cells in the ectopic environment. Staining with Nectin-3 demonstrated persistent endometriotic lesions in the eutopic endometrium [14]. and the origin of the pain associated with neurotrophic factors of the nervous system. Complementary therapy with royal jelly could reduce pain [15].

Additionally, the pain decreases with the use of analgesics although the healthy may be affected generally. However, analgesics are preferred over the intense pain that occurs in women without the influence of analgesics affecting their ability to attend daily activities [16].

Dysmenorrhea is strongly associated with endometriosis. For women with primary dysmenorrhea without reproductive desires, the initial treatment is hormonal contraception and non-steroidal anti-inflammatory drugs [8]. The most commonly used analgesics are derivatives of propionic acid (ibuprofen, naproxen, and ketoprofen), which are effective in relieving pain, and less toxic than other analgesics [17].

Dysmenorrhea has a negative impact on the daily activity performance of those who suffer from it as the condition is of variable severity and can become incapacitating, resulting in absenteeism, decreased academic performance, changes in mood and negatively affecting interpersonal relationships [18].

2. Material and methods

The present work used the scientific, hypothetical-deductive method and non-experimental design, correlational type. University students were invited to participate in the research after explaining to them the problems associated with dysmenorrhea among women of childbearing age. A total of 65 students with dysmenorrhea from the University of Luna in the high Andean zone of 3870 msnm were selected. Once the informed consent was obtained, a survey form was distributed among the participants. Application and reliability of 0.8. The variables of the semiological findings consisted of questions about the symptoms that led to the diagnosis of primary dysmenorrhea. Additionally, the data were analyzed using the statistical program SPSS V.21, relating all the semiological findings with present dysmenorrhea, resulting in the creation of double-entry tables for analysis and interpretation.

3. Result

Of the total number of students who participated in the study, 46.2% developed moderate primary dysmenorrhea, with onset of pain less than 5 years in 27.3%, followed by 6–9 years in 13.6% and more than 10 years in 4.5% after menarche. Approximately 27.3%

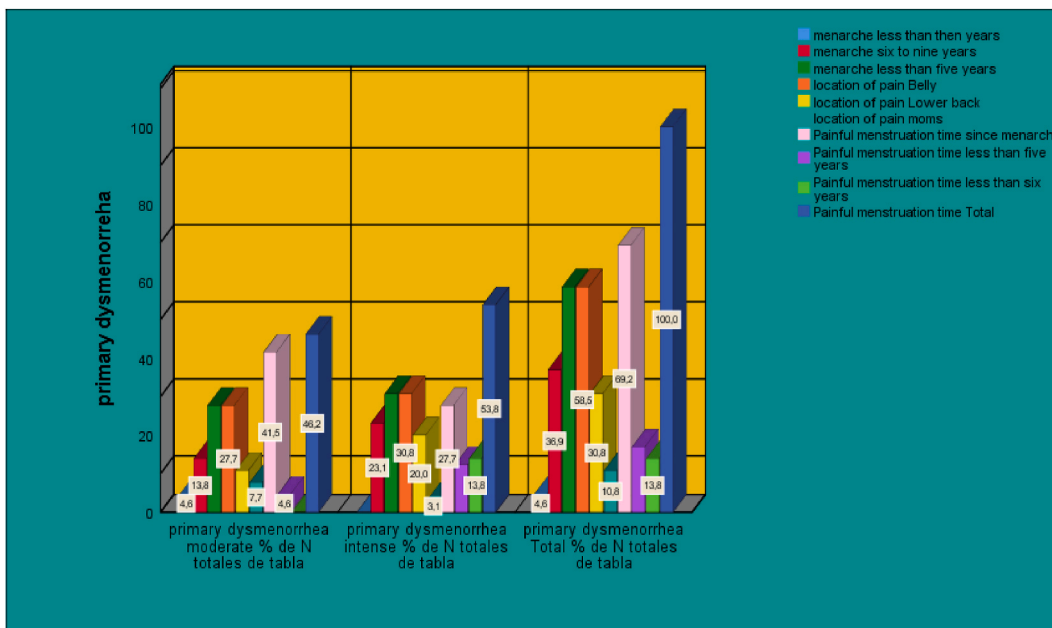


Fig. 1. Shows that the time of painful menstruation began after menarche, both for moderate dysmenorrhea and for intense dysmenorrhea with an onset time of less than five years, located in the abdomen.

located the pain in the abdomen, 10.6% in the lower back, 7.6% in the breasts, and 40.9% identified the time of painful menstruation since menarche began. Approximately 4.5% experienced pain after 5 years from the onset of menstruation. In addition, 53.8% of women experienced intense primary dysmenorrhea, of which 30.3% began experiencing pain in less than 5 years. Additionally, 22.7% of women experienced the condition between 6 and 9 years after menarche, 30.3% felt pain in their abdomens, 19.7% in their lower backs, and 3% in their breasts, while 27.3% had experienced the condition since menarche, 13.6% in less than 6 months, and 12.1% in more than 5 years. Fig. 1.

displays the following: Of the students who had moderate primary dysmenorrhea, 27.7% expressed stress, 10.8% anguish, 1.5% sadness, 6.2% no change, 30.8% developed symptoms such as lower back pain, 9.2% expressed feeling of intense cold in feet and hands, 6.2% reported headaches, 21.5% reported onset of pain 1–2 days before the cycle, 13.8% throughout menstruation, and 10.8% on the same day as the onset of menstruation. Furthermore, 29.2% stopped working for at least less than 1 h, 13.8% for 3–6 h, and 3.1% stopped working for the day. Regarding intense primary dysmenorrhea, 21.5% experienced sadness, 10.8% anguish, 9.2% stress, and 13.2% no change; 26.2% reported headaches, 20% reported intense cold sensation in feet and hands, and 7.7% had lower back pain. Approximately 29.2% started experiencing pain 1 or 2 days before the menstrual cycle, 15.4% experienced the pain on the same day as menstruation started, and 9.2% throughout the menstruation. Approximately 29.2% stopped doing their job, 23.1% stopped working for 3–6 h, 20% all day, and 10.8% less than 1 h. Fig. 2.

Exhibits that moderate primary dysmenorrhea was discovered in 18.5% of students consuming some type of medication, 27.7% in students who did not use any medication, 30.8% consumed analgesics such as Anaflex, 10.8% Ponstan, and 4.6% used ibuprofen. Approximately 41.5% did not have a medical consultation, whereas 4.6% consulted a gynecologist. Regarding severe primary dysmenorrhea, 36.9% of the students used medication, 16.9% did not use medication, 24.6% consumed ibuprofen, 15.4% used Ponstan, and 13.8% used Anaflex. Moreover, about 53.8% did not have a gynecological consultation. Fig. 3.

Presents the results of the Pearson R statistic, a high positive correlation was observed for the semiological findings, menarche (0.854), symptoms (0.791), location of pain (0.727), and type of medication (0.750), with primary dysmenorrhea being highly significant (0 0.01); moderate positive correlation with pain intensity (0.529), pain onset (0.610), and low positive correlation with medication use (0.197), disability time (0.101) and mood changes (0.732), demonstrating a high significance of (0.01) for the most part. Fig. 4.

4. Discussion

The symptoms observed in university students were due to primary dysmenorrhea, resulting from an imbalance between estrogen and progesterone [19].

Furthermore, many women are unaware of the existing medical treatment for dysmenorrhea [20]. The condition is taken for granted and women only become aware of their ailments when the subject is raised, which is important from a public health point of view as specific laboratory studies for the diagnosis of primary dysmenorrhea have not been conducted [21]. Therefore, the cause for this condition should be investigated further. Since it is a subjective problem, its intensity is also variable, and when added to the range

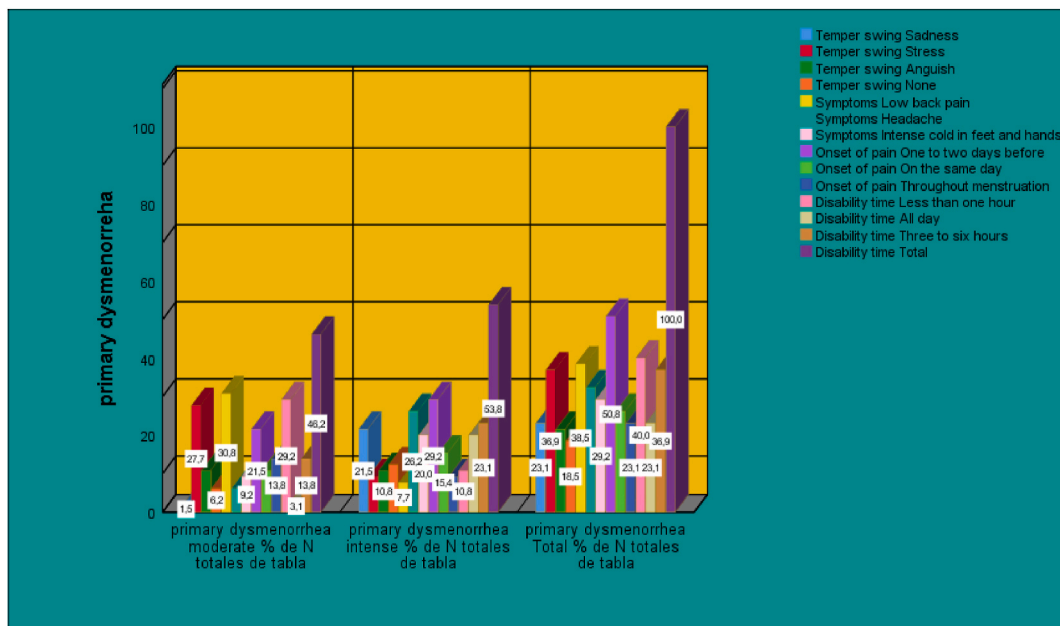


Fig. 2. Shows that mood changes, located in the lumbar region with disability time of less than 1 h, are found in a higher percentage in moderate dysmenorrhea, and the symptoms of intense dysmenorrhea are perceived one or two days before. of menstruation.

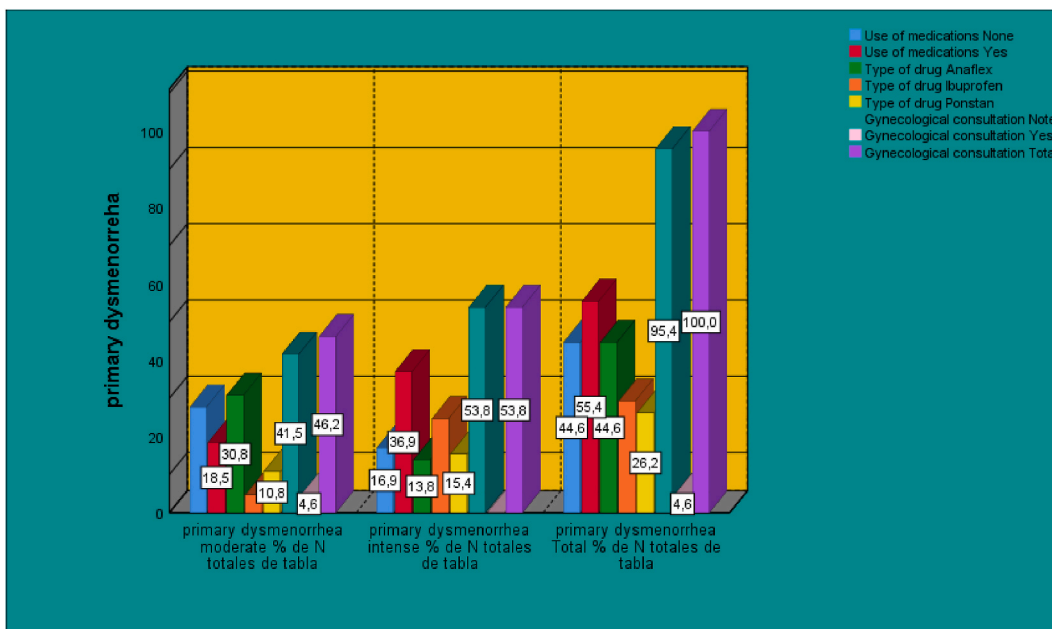


Fig. 3. Both in intense and moderate dysmenorrhea, the students did not attend a gynecological consultation and their preferred analgesic is anaflex, with a lower percentage not consuming any type of medication to calm this dysmenorrhea.

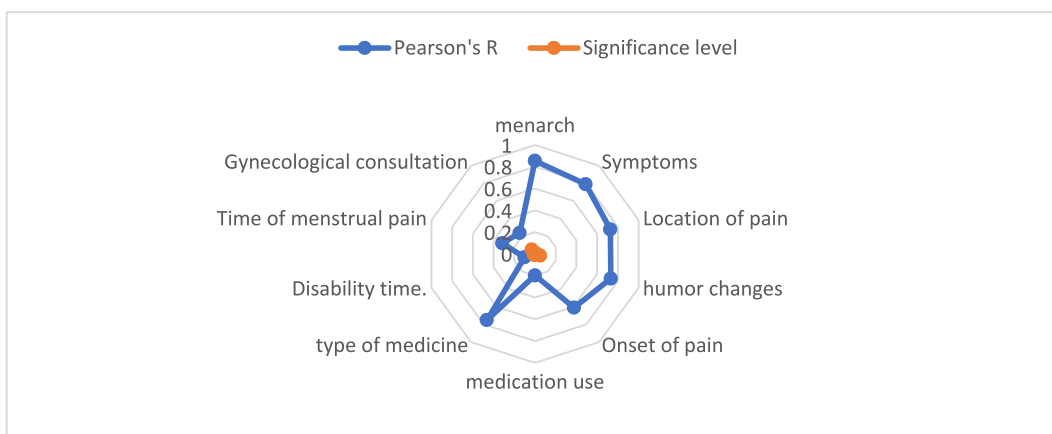


Fig. 4. In the. The menarche variable was found to have a strong positive relationship with dysmenorrhea, with a high level of significance compared to the other variables studied.

of issues that menarche already brings, the lack of education presents more detrimental factors.

The majority of respondents also confirmed hypersensitivity to pain that ranges from moderate to severe, with mood swings, which some researchers associated with an emotional factor [22].

The mood swings that were determined in the students were because they could not act freely on the days of menstruation, especially when they had to undertake exams or attend practical or theoretical classes, which is why absenteeism was noted in certain classes. Due to lack of time, finances, carelessness, and fear that women do not attend or consult the gynecologists, most self-medicate, if the pain is mild, ingesting herbs such as celery, rue, oregano, chamomile or muña [23].

If the pain is more intense, they use painkillers that are free-selling in pharmacies, in their different forms that are effective for this ailment [24].

But when self-medicating, they can cause other gastric problems that will cause nausea or vomiting, but this goes unnoticed or is believed to be part of the symptoms that women can experience when they are in the menstrual cycle, some recommend increasing the intake of water and juices [25].

The study was limited by the lack of specialized procedures, such as imaging and laboratory tests, to support clinical diagnosis and rule out illnesses of the body and the endocrine system. Among other diseases, we limited ourselves to the symptoms manifested by the

participants. Therefore, the cause of dysmenorrhea should be investigated further. The strength of the study is that in high Andean cities, above 3870 msnm, there are no major studies of this nature; therefore, this first approximation opens the doors for further comparative and experimental studies.

5. Conclusions

The semiological findings significantly associated with moderate primary dysmenorrhea were pain less than 5 years after the onset of menarche, and pain located in the abdomen. From the onset of menarche, women mostly experienced stress, and lower back pain 1–2 days before menstruation, interrupting their work in less than 1 h. For self-treatment, some participants consumed analgesics such as Anaflex (diclofenac), and most did not consult a gynecologist. As for intense primary dysmenorrhea, the onset of pain was less than 5 years after the onset of menarche, the pain was of moderate intensity, located in the abdomen, and with a time of dysmenorrhea from the onset of menarche, most experienced sadness, with headache, 1–2 days before menstruation. The inability to work ranged from 3 to 6 h to 1 day, and most participants consumed drugs such as ibuprofen without consulting a gynecologist.

Ethics statements

The authors who participated in the study, comply with ethics and scientific integrity, the women of childbearing age who voluntarily participated in the research, received training on the subject of primary and secondary dysmenorrhea, they were informed about the content of the survey that it was done virtually due to the pandemic we were going through, it was not necessary to resort to the ethics committee of the aforementioned university, because the study did not require the use or intake of any medication that endangers the lives of the University students.

Data confidentiality

The authors declare that they have followed the protocols of their work center regarding the publication of patient data.

Right to privacy and informed consent

The authors declare that no patient data appears in this article.

Author contribution statement

All authors listed have significantly contributed to the development and the writing of this article. </p>

Data availability statement

Data associated with this study has been deposited at <https://data.mendeley.com/datasets/5yvfjgn5rv>.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests.

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Protection of people and animals.

The authors declare that no experiments were carried out on humans or animals for this research.

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