

Pelvic Endometriosis in a Black Virgin Adolescent in Sub-Saharan Africa

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ABSTRACT

Background: Endometriosis was formerly described as caucasian disease; with the practice of laparoscopic surgery in Africa it has been shown to concern also Black women.

Objective: To share with the researchers and clinicians a case of pelvic endometriosis in a black virgin adolescent in sub-Saharan Africa's setting.

Case: Adolescent girl, 20 years old, virgin, managed for chronic pelvic pain with, nonsteroidal anti-inflammatory drugs, combine oral contraceptives, paracetamol and tramadol for eight months with no regression of symptoms. Laparoscopic surgery was used to diagnose and remove endometriotic tissue. Then the administration of a GnRh agonist associated with an add-back therapy permitted effective treatment of the patient.

Conclusion: Pelvic endometriosis exist in black adolescent girls in sub-saharan Africa, and must be excluded in all cases of chronic pelvic pain resistant to nonsteroidal anti-inflammatory drugs, paracetamol, combined oral contraceptives and tramadol.

Keywords: Endometriosis, Adolescent, Sub-saharan Africa

INTRODUCTION

Pelvic endometriosis, long considered a pathology of the Caucasian population, has also been shown to affect black women thanks to the popularization of endoscopy in sub-Saharan Africa over the past 20 years [1]. This pathology is characterized by the existence of endometriotic glandular and stromal tissue in an ectopic area [2]. Long considered a pathology for adult women, literature has proven for at least 2 decades that it is also present in adolescents, in the Caucasian population [3,4]. In presenting this clinical case we would like to share with the medical scientific community the existence of endometriosis in adolescent black girls in sub-Saharan Africa.

CASE

We are reporting a case of adolescent girl of 20 years old, nulligravid who consulted in the gynecology department of the Douala General Hospital (HGD) for chronic pelvic pain of 8 months duration, regardless of the period of the menstrual cycle, of greater intensity (quoted 8/10 on a visual analog scale [5]) during menstruation, without improvement

on antispasmodics, paracetamol, non-steroidal anti-inflammatory drugs (NSAIDs) and tramadol. Gynecological past history revealed menarche at 13 years, a regular menstrual cycle and no coitarche.

She never had a laparotomy. Her general state was good, the abdomen was soft and we did not palpate any mass. The vulva was normal, the hymen was present and the penetration of a cotton swab made it possible to verify the absence of a vaginal

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septum, agenesis of the vagina and stenosis of the cervix; digital rectal examination identified a free and non-tender rectovaginal wall and posterior cul de sac; pelvic ultrasound was normal. We sought the opinion of the gastroenterologist and the digestive surgeon who requested the following examinations (Full blood count, C Reactive Protein, Abdominal ultrasound, Stool examination) whose results were normal. MRI could not be performed because the machine was not functioning. Therefore, we suspected pelvic endometriosis : however after 3 months of monophasic low dose estrogen-progestin pill (Levonorgestrel 0.150 mg and Ethinyl oestradiol 0.030 mg) (MLOP) no improvement was observed. Hence the decision for a laparoscopy for diagnostic and possibly therapeutic purposes. After informed consent from the patient and her parents on the importance of laparoscopy, followed by a conclusive anesthetic consultation, the operative findings were essentially: a normal but soft and hypervascularized uterus suggestive of adenomyosis; normal appendices; a hematocele of about 150 ml of dark red blood; endometriotic lesions in the pouch of Douglas, uterosacral ligament and pelvic peritoneum, consisting of red, white, vesicular micronodules (from 02 to 04 mm); type A left ovaro-peritoneal adhesion [6] (**Figure 1**). The lesions were classified stage I [7]. The surgical procedures consisted mainly of: Biopsies of the lesions described above for histopathological analysis, aspiration of the hematocele, cauterization of residual micronodules, adhesiolysis and pelvic lavage with Ringer lactate. She came out at the 18th hour post-operation on MLOP and Celecoxib:100 mg every 12 h during 10 days. She returned for consultation on the 14th day post-operation with the result of the biopsy analysis which confirmed endometriosis; however, the pelvic pain persisted. Hence, we prescribed a GnRH agonist (Triptorelin LP 3 mg) 3 mg IM / month for 3 months in addition to the MLOP in Add back therapy. This led to a 6-month amenorrhea after the first injection and then return to a normal menstrual cycle. The patient was re-evaluated every 3 months for the two years following the surgery, a period marked by the complete regression of the pain.

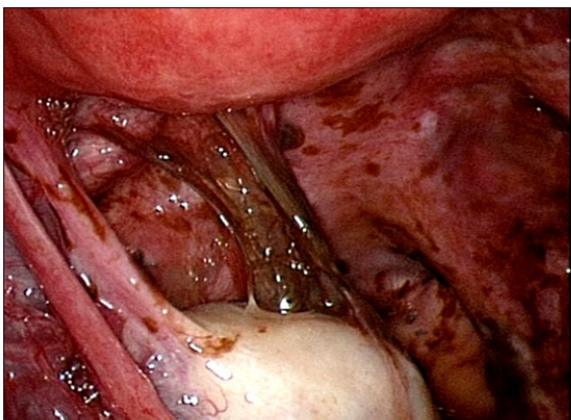


Figure 1. Stage I pelvic endometriosis.

DISCUSSION

The clinical profile of our patient corresponds to that found in the literature where dysmenorrhea is found in 64 to 68% of cases [3,4]. The gynecological, ultrasound and laparoscopic exams did not identify any obstructive genital malformation (bicornuate uterus, vaginal atresia, hymenal imperforation or microperforation, transverse vaginal septum, obstructive hemivagina) that is found in 5 to 6% of adolescents suffering from endometriosis [8]. However, Sampson's theory of retrograde menstruation seemed to explain this case of pelvic endometriosis in adolescent [9]. We were surprised by the intensity of pain, quoted 8/10 on a visual analog scale, for stage I pelvic endometriosis [5] (**Figure 1**), compared to a patient of 29 years followed in our department during the same period who had pain quoted 5/10 for stage IV pelvic endometriosis (**Figure 2**). We attributed it to individual sensitivity. Although pain is one of the main symptom's women with endometriosis present with, there is poor correlation between symptom severity and disease burden. Even the biological mechanisms by which pain arises are still only poorly understood [10]. The time frame between the appearance of the first pelvic pain and the laparoscopic diagnosis is 08 months in our patient, 22.8 months in a series of adolescents followed by Erica et al. [3]. This delay is 15 years on average in the series of Matsuzaki et al. [11] in patients whose symptoms started in adolescence. The same authors, as well as Arruda et al. [12] find a significant correlation between delay in diagnosis and the severity of peritoneal lesions: hence the interest of attentive listening, the absence of trivialization of pain; and to take time to re-examine the patient on another occasion if the first examination is doubtful. Symptomatic adolescents after treatment failure combining estrogen-progestin pill and NSAIDs should benefit from diagnostic laparoscopy [13]. This attitude is recommended by the American College of Obstetrics and Gynecology (ACOG) [14] for all patients under the age of 18 with pelvic pain not responding to the treatment combining NSAIDs and estrogen-progestin pill. It seems to us that this attitude should be primarily reserved exclusively for virgin adolescents. On the other hand, those who are not virgins must benefit beforehand from an infectious workup in order to eliminate a pelvic inflammatory disease, particularly in our context where coitarche is premature and where STIs are a public health concern [15]. Laparoscopy described typical lesions: red, and atypical: vesicular and clear. Atypical lesions are frequent in adolescents: they can also be fibrous or even whitish [3]. These unusual lesions do not always correspond to endometriotic lesions. Therefore, it is essential for this population, often in the process of growth, to establish a histological diagnosis in order to avoid false positives from a laparoscopic diagnosis and baseless and possibly harmful treatments to GnRH agonist (GnRHa). A meta-analysis on the efficacy of GnRHa versus combined treatment (oral contraceptive combination) in endometriosis shows the

superiority of GnRHa over conventional oral contraception [16]. We prescribed a GnRHa because of resistance to MLOP plus Celecoxib. Add Back therapy with a MLOP has been associated, in order to guarantee good tolerance. In adolescent, treatment with GnRHa plus add back led to improve quality of life with no worsening of mood or menapausal side effects [17]. We opted for a protocol allowing to observe 06 months of amenorrhea because of the patient's age, that is 20 years, where she is almost at the end of her growth. Nevertheless for younger adolescents a GnRHa protocol inducing an amenorrhea not exceeding 03 months seems safe to us.

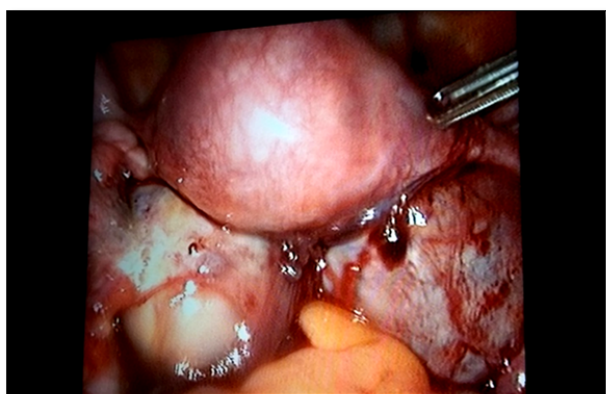


Figure 2. Stage IV pelvic endometriosis.

CONCLUSION

The early occurrence of endometriosis after menarche is a possible eventuality in Black adolescent in sub-saharan Africa. Moreover, it should be sought before any chronic pelvic pain in an adolescent girl. The interest is not only the early management of the pathology but especially the long-term follow-up in order to preserve subsequent fertility.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Ethical approval was obtained from Douala General Hospital for publication of this case report.

CONSENT FOR PUBLICATION

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-chief of this Journal.

AVAILABILITY OF DATA AND MATERIAL

The datasets (medical file of the patient) is available in Douala General Hospital on reasonable request.

COMPETING INTERESTS

The author declare that they have no competing interests in this section.

AUTHOR'S CONTRIBUTION

All authors participated in the design and editing of the manuscript; all authors approved the final version of the manuscript.

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REFERENCES

1. Njamen TN, Kasia JM, Toukam M, Medou A, Messina R, et al. (2006) Coelioscopie pour douleur pelvienne : Résultats d'une série de 40 cas. Clin Mother Child Health 3: 427-431.
2. Black AY, Jamieson MA (2002) Adolescent endometriosis. Curr Opin Obstet Gynecol 14: 467-74.
3. KAMorozov VV, Kearney S, Zurawin JL, Nezhat CH (2015) Endometriosis in Adolescents. JSLS 19(2): e2015.
4. Suvitie PA, Hallamaa MK, Mäkinen JI, Perheentupa AH (2016) Prevalence of pain symptoms suggestive of endometriosis among Finnish adolescent girls (TEENMAPS Study). J Pediatr Adolesc Gynecol 29: 97-103.
5. Langley GB, Sheppard H (1985) The visual analogue scale: Its use in pain measurement. Rheumatol Int 5: 145-148.
6. American Fertility Society (1988) The American Fertility Society Classification of adnexal adhesions, distal tubal occlusion secondary to tubal ligation, tubal pregnancies, Mullerian anomalies and intrauterine adhesions. Fertil Steril 49: 944-955.
7. Johnson NP, Hummelshoj L, Adamson GD, Keckstein J, Taylor HS, et al. (2017) World endometriosis society consensus on the classification of endometriosis. Hum Reprod 32: 315-324.
8. Attaram M, Gidwani GP (2003) Adolescent endometriosis. Obstet Gynecol Clin North Am 30: 379-390.
9. Sampson JA (1940) Development of the implantation theory of the origin of peritoneal endometriosis. Am J Obstet Gynecol 40: 549-557.
10. Coxon L, Horne AW, Vincent K (2018) Pathophysiology of endometriosis-associated pain: A review of pelvic and central nervous system mechanisms. Best Pract Res Clin Obstet Gynaecol 51: 53-67.
11. Matsuzaki S, Canis M, Pouly JL, Botchorishvili R, Houille C, et al. (2005) Relationships between delay

before surgical diagnosis and severity of disease in patients with symptomatic deep infiltrating endometriosis. A prospective study. *Eur J Obstet Gynecol Reprod Biol* 123: 1.

12. Arruda MS, Petta CA, Abrao MS, Pinto CL (2003) Time elapsed from onset of symptoms to diagnosis of endometriosis in a cohort study of Brazilian women. *Hum Reprod* 18: 756-759.
13. Hassan E, Kontoravidis A, Hassiakos D, Kalogirou D, Kontoravidis N, et al. (1999) Evaluation of combine endoscopic and pharmaceutical management of endometriosis during adolescence. *Clin Exp Obstet Gynecol* 26: 85-87.
14. American College of Obstetricians and Gynecologists Committee Opinion (2005) ACOG Committee Opinion. Number 310, April 2005. Endometriosis in adolescents. *Obstet Gynecol* 105: 921-927.
15. Cameroun - Enquête Démographique et de Santé et l'Enquête par grappe à Indicateurs Multiples (2011) Quatrième série des EDS et des MICS : Santé de la mère : résultats de l'EDS-MICS 2011.
16. Moore J, Kennedy S, Prentice A (1997) Modern combined oral contraceptives for pain associated with endometriosis. *Cochrane Database Syst Rev* 4.
17. Gallagher JS, Feldman HA, Stokes NA, Laufer MR, Horstein MD, et al. (2017) The effects of GnRHa plus Add-Back therapy on quality of life for adolescents with endometriosis. A Randomised controlled trial. *J Pediatr Adolesc Gynecol* 30: 215-222.