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## Genital endometrioses: frequency and anatomo- histoclinic aspects at Conakry University Teaching Hospital Guinea

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### Abstract

**Objectives:** Calculate the frequency of genital endometriosis, describe the epidemiological profile and describe the anatomo-histoclinical aspects of genital endometriosis at the Conakry University teaching Hospital.

**Methodology:** this was a retrospective descriptive study lasting 10 years, from January 1, 2008 to December 31, 2018. It concerned all cases of lesions of the female genital system, the which documents were examined in the anatomo-pathological laboratory. It concerned all cases of lesions of the female genital system whose parts were examined in the anatomo-pathological laboratory. The limitations or constraints of the study were the absence of certain information on the anatomopathological examination request forms and the absence of imaging results (ultrasound, MRI). We carried out an exhaustive examination of the data available in the registers of the anatomo-pathologies service of the Conakry University Teaching Hospital.

**Results:** The frequency of genital endometriosis was 13.09% (n = 111) among benign genital pathologies (n = 737). Female genital endometriosis cases represented 81.02% followed by digestive ones 9, 48%. The epidemiological profile was that of a woman in the 30-39 age group (33.10%), housewife (45.54%), pauci gesture (26.67%), nulliparous (36%). The reasons for consultation are dominated by dysmenorrhea (54.05%) followed by menometrorrhagia (48.65%). The main presumptive clinical diagnoses were ovarian cysts (30%) and uterine myoma (27.027%). The samples represented by the operative parts constituted the bulk of the samples examined (89.19%). The uterine endometriosis topography was the highest (53.15%) followed by ovarian one (35.14%). The cases of endometriosis with a firm consistency were the most observed at 48.65% followed by cases with a soft consistency (16.22%). The cases of genital endometriosis of homogeneous consistency and reddish appearance represented 44.14% followed by whitish cases (27.03%). Endometriosis with heterologous elements represented 37.84% followed by cases without associated changes 24.32%. Endometriosis lesions with a mono focal location were the most represented 63.06%. The histological position in the utero-cervical locations was deep in 49.21% followed by the superficial location in 26.98%. Endometriosis cases without associated lesions represented 55.86 followed by cases associating inflammatory lesions 18.02%.

**Conclusion:** Endometriosis is a benign lesion affecting all segments of the female genital tract. It constitutes a polymorphic lesion in its non-specific symptomatology. It represents an affection of the young woman in full genital activity which can compromise her fertility. The diagnosis of deep forms is complex involving clinical, imaging (ultrasound and magnetic resonance imaging) which must always be confirmed by pathological examination.

**Keywords:** Genital endometriosis, frequency, anatomo-histoclinic aspects

### Introduction

Female genital endometriosis is one of the affections of women characterized by ectopia of the endometrial mucosa outside its usual site. These lesions are benign, organic, but can cause female infertility <sup>[1]</sup>. Their frequency is difficult to determine as a large number of these conditions remain asymptomatic <sup>[2]</sup>. They can affect all ages of life, but with a high frequency in women with full genital activity between the 3rd and 5th decade of life <sup>[3]</sup>.

Their prevalence is generally a function of the site of localization. Their prevalence in hysterectomy series is also very variable, from 10 to 33% <sup>[2]</sup>. It is difficult to extrapolate to infertile women, these prevalences being determined in the series of hysterectomy performed <sup>[2]</sup>.

All organs of the female genital system can be affected but with a variable frequency depending on the topography according to the authors. Uterine involvement is most frequently encountered on hysterectomy and autopsy specimens. Tubo-ovarian involvement is the most common in certain gynecological statistics [4]. Multiparity is the main risk factor for adenomyosis. Tobacco, the intrauterine device (IUD), oral contraception, a history of cesarean section or curettage do not constitute a risk factor for adenomyosis [5]. Although they constitute a benign uterine pathology, but they can compromise the obstetrical future of the woman or cause other serious or fatal organic lesions of the genital tract (Cancer). Their diagnosis is often complex due to the many asymptomatic forms and the absence of pathognomonic symptoms in these conditions [6]. Their diagnosis is based on clinical examination, imaging (ultrasound, MRI) but always confirmed by pathological examination of the operating part [2]. The objectives of this study were to calculate the frequency of genital endometriosis, describe the epidemiological profile and describe the anatomo-histoclinical aspects of these genital endometriosis at the Conakry University Teaching Hospital.

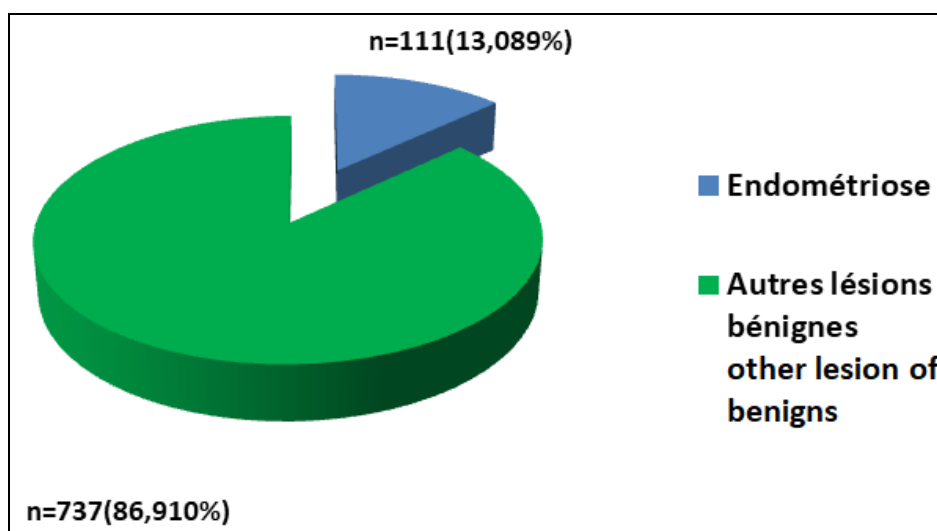
**Methodology**

This was a descriptive retrospective study lasting 10 years, from

January 1, 2008 to December 31, 2018. It concerned all cases of lesions of the female genital system, with its parts examined in the anatomo-pathological laboratory. It concerned all cases of lesions of the female genital system whose parts were examined in the anatomo-pathological laboratory. All cases of lesions of the female genitalia diagnosis that had been ruled out histologically were excluded. The limitations or constraints of the study were the absence of certain information on the anatomopathological examination request form and the absence of imaging results (ultrasound, MRI). We carried out an exhaustive review of the available data in the registers of the anatomo-pathologies service of Conakry University teaching Hospital. The variables studied were epidemiological (frequency, anatomical location, age, pregnancy, parity, socio-professional categories), clinical (reasons for consultation, presumptive clinical diagnosis), anatomopathological: macroscopic (type of sample, topography, appearance, associated rearrangements, consistency of the nodule) and histological (number of the nodule, associated lesions, histological position in utero-cervical locations).

**Results**

**I-1. Frequency:** The frequency of genital endometriosis was 13.09% (n = 111) among benign genital pathologies (n = 737). .



**I-2. Anatomical location:** cases of endometriosis at female genital locations represented 81.02% followed by digestive cases 9.48%.

Location	Number	Parentages
Genital	111	81,02
Digestive	13	9,48
Urinary	6	4,37
Cutaneous-mucosa	7	5,10
Total	137	100

**II. The epidemiological profile**

- Age:** the age group of 30-39 years was the most concerned (33.10%) followed by that of 40-49 years, 27 cases (25, 71%). It is followed by the age group of 40-49 years, 27 cases (25, 714%), then the age groups of 50-59 years and 60-69 years, 11 cases of each, or 10, 48%. The average age was 34.71 years with extremes of 13 and 64 years.
- Gesture:** Pauci gestures were the most represented (26.67%) followed by nulligestes (25.33%) and then

primigestes (18.67%).

- Parity:** The nulliparas constituted the majority of the cases observed (35.13%) followed by first-time mothers (25.22%).
- Socio-professional categories:** Housewives were the most concerned (45.54%) followed by civil servants (30.69%).

**III. Clinical**

- Reasons for consultation:** Dysmenorrhea were the main reasons for consultation (54.05%) followed by menometrorrhagia (48.65%).
- Presumptive clinical diagnosis:** The main presumptive clinical diagnoses were ovarian cysts (30%) and uterine myoma (27.027%).

**IV. Anatomo-pathology**

**A. Macroscopy**

- The type of sample:** The samples represented by the operative documents constituted the bulk of the samples examined (89.19%).
- Topography:** The topography of endometriosis at uterine

location was the highest (53.15%) followed by ovarian one (35.14%).

- **Appearance:** The cases of genital endometriosis of homogeneous consistency and reddish appearance accounted for 49 44.14% followed by whitish cases 30 cases (27.03%).
- **Associated rearrangements:** Endometriosis with heterologous elements represented 37.84%, followed by cases without associated rearrangements 24.32% then cases of necrotic rearrangements 18.02%.
- **The consistency of the nodule:** The cases of endometriosis with a firm consistency were the most observed, ie 48.65%, followed by cases with a soft consistency (16.22%) then cases with a renitent consistency 16 cases (14.41%).

## B. Histology

- **The number of the nodule:** Endometriosis lesions with a mono focal location were the most represented 63.06%.
- **Associated lesions:** Endometriosis cases without associated lesions represented 55.86 followed by cases associating inflammatory lesions 18.02%.

Associates lesions	Number	Parentage
Hyperplasia	16	14,41
Inflammatory lesions	20	18,02
Uterine myoma	19	17,12
Without Associates Lesions	62	55,86
Tumor	5	4,50
Noboth's eggs	10	9,01

- **The histological position in the utero-cervical locations:** Lesions of adenomyosis or uterine endometriosis of associated anatomical position, that is to say superficial and deep in relation to the endometrium, represented 49.21% followed by locations shallow 26.98%.

## Discussion

**I-1. Frequency 1:** The frequency of genital endometriosis was 13.09% (n = 111) among benign genital pathologies (n = 737). Our observation is similar to that reported by C. DUPAS et Coll. [7], Jondet Michel [8] and Darai E. and Coll. [9] ie 9%, 12% and 13% respectively. On the other hand, Boutet Gerard and Coll. [10] reported that the exact frequency of adenomyosis is unknown, as there are many asymptomatic forms diagnosed during routine autopsy. It is found in 7-77% of hysterectomy specimens.

**I-2. Anatomical location:** cases of endometriosis at female genital locations represented 81.02% followed by digestive cases 9.48%. DARAÏ E. and Coll. [9] reported that the forms with digestive localization were 12%.

## II. The epidemiological profile:

1. **Age:** the age group of 30-39 years was the most concerned (33.10%) followed by that of 40-49 years, 27 cases (25, 71%). It is followed by the group age 40-49 years, 27 cases (25, 714%). Then in the age groups of 50-59 years and 60-69 years, 11 cases each, or 10.48%. This result shows that endometriosis constitutes a benign pathology of the endometrium that could be encountered at any age, but with a high frequency in women in full genital activity. This result is comparable to that found by BEN AISSIA NIZAR.etColl. [11] with a frequency peak between 40 and 50

years.

2. **Gesture:** Pauca gestures were the most represented (26.67%) followed by nulligestes (25.33%) and then primigestes (18.67%). PANEL P. *et al.* [6] reported in their series that endometriosis is often highlighted in women of childbearing age, with a peak in frequency between 30-40 years. The same authors have reported that the increased time between the age of the first menstruation and pregnancy is a risk factor for endometriosis.
3. **Parity:** The nulliparas constituted the majority of the observed cases (35.13%) followed by first-time mothers (25.22%). This result is lower than that reported by CAMAGNA OLIVIER et Coll. [12] or 77% in nulliparas. On the other hand BEN AISSIA NIZAR. Et Coll. [11] found in their study that adenomyosis mainly affects the multiparous 74%.
4. **Socio-professional categories:** Housewives were the most concerned (45.54%) followed by civil servants (30.69%).

## III. Clinic

**a) Reasons for consultation:** Dysmenorrhea were the main reasons for consultation (54.05%) followed by menometrorrhagia (48.65%). This result is lower than that found by Camagna Olivier et Coll. [12] or 82.5% cases of dysmenorrhea. On the other hand BEN AISSIA NIZAR. *et al.* [11] and Boutet Gerard and Coll. [10] found 71% and 50% cases of menometrorrhagia, respectively.

**b) Presumptive clinical diagnosis:** The main presumptive clinical diagnoses were ovarian cysts (30%) and uterine myoma (27.027%). C. Dupas. and Coll. [7] in their series reported that the diagnosis of endometriosis is most often made in women of childbearing age but it can be difficult to establish, due to the diversity of symptoms and diagnostic difficulties. In fact, there is no simple examination to confirm the diagnosis and it is only the observation of ectopic endometrial tissue by pathological examination on a biopsy under laparoscopy or an operative specimen to confirm the diagnosis with certainty. The other clinical and para clinical examinations are only times evoking the diagnosis without confirming it. G. Chene and Coll. [2] indicates that the diagnosis of endometriosis must be confirmed by a pathological examination, in practice, a biopsy of the lesion diagnosed during laparoscopy.

## IV. Anatomic-Pathology

### A. Macroscopy

- **The type of sample:** The samples represented by the operative documents constituted the bulk of the samples examined (89.19%). KDOUS M. *et al.* [5] reported that in cases of hysterectomies for various reasons (excluding prolapse), histological study of the surgical specimen revealed the presence of adenomyosis in 14.85%. G. CHENE *et al.* [2] who in their study affirms that the diagnosis of endometriotic lesions is easy to study on the organ part than on diagnostic biopsies. This allows a clinical-histological correlation study to be carried out in order to determine the specificity and diagnostic sensitivity. Endometriosis lesions are rarely evoked or confirmed on a diagnostic biopsy specimen, especially endometrial ones. This will always raise doubts about the diagnosis. To better confirm these endometriosis lesions and assess the associated lesions, surgical specimens seem to be the best indicated. This observation is classic, it is similar to that of other authors because endometriosis is a polymorphic lesion that can be multifocal.

- **Topography:** The topography of endometriosis at uterine location was highest (53.15%) followed by ovarian one (35.14%). This observation is classic because the location of endometriosis called adenomyosis is the main location. This localization is often associated with smooth muscle hyperplasia of the myometrium, hence the name adenomyomatosis. BRICOU, A. *et al.* [1] reported in their study that there is a distribution asymmetry between the right and left hemi-pelvis. The left hemi-pelvis is more affected than the right, regardless of the types of endometriotic lesions (superficial, cystic, ovarian and deep). Superficial lesions are predominant in the left hemi cavity compared to the right. Endometria are most often located on the left ovary.
- **Appearance:** The cases of genital endometriosis of homogeneous consistency and reddish appearance represented 49 cases (44.14%) followed by cases with a whitish appearance 30 cases (27.03%). This observation shows that the endometriotic lesions are benign lesions which vary in appearance depending on the organ which is the site of the lesion and the functional nature of the lesion. This statement is similar to that of JONDET MICHEL [8] who in his study mentioned that the macroscopic aspects depend on the organ and the age of the lesion. These aspects make it possible to differentiate between red or bluish punctiform lesions, classically corresponding to endometriosis of recent formation, then the whitish forms correspond to the oldest lesions. The lesions can take on the form of nodules or cysts, the most advanced form being represented by endometriotic cysts of sometimes respectable size (10 cm in diameter or even more), with "chocolate or tar" liquid content. Adhesions can quite frequently be associated with these different lesions.
- **Associated rearrangements:** Endometriosis with heterologous elements represented 37.84%, followed by cases without associated rearrangements 24.32% then cases of necrotic rearrangements 18.02%. This observation shows that endometriosis lesions are rarely homogeneous; they are most often associated with heterologous lesions which are the functional activity of endometriosis. It joins that of JONDET MICHEL [8] who in his study reported that the presence of heterologous elements within endometriotic lesions are classic. Bleeding within foci of endometriosis, concomitant with menstruation, results in hemorrhagic suffusions in the cytogenic chorion and in the glandular lumen and is accompanied by a predominantly macrophasic inflammatory reaction, this would explain the necrotic lesions.
- **The consistency of the nodule:** The cases of endometriosis with a firm consistency were the most observed, ie 48.65%, followed by cases with a soft consistency (16.22%) then cases with a renitent consistency 16 cases (14.41%). This observation is classic because most of our collected cases were uterine. The endometriotic localization of the uterus promotes hypertonia of the uterine wall, which strengthens the firmness of the endometriotic nodule. The endometriotic lesions of ovarian localization if they are functional favor the formation of cysts with hemorrhagic fluid content giving a renitent consistency. Our study joins that of JONDET MICHEL [8] who reported in his study that the consistency of the endometriotic nodule depends on the site or tissue location. The uterine localization gives a firm appearance sometimes hard, poorly limited, while the tubo-ovarian one gives a renitent or soft blood fluid collection.

## B. Histology

- **The number of the nodule:** Endometriosis lesions with a mono focal location were the most represented 63.06%. This shows that the locations of genital endometriosis can be single or multiple but are difficult to assess because some endometriosis lesions can be non-functional, that is to say without clinical expression. Our result is contrary to those reported by DEFFIEUX X. *et al.* [13] and by FERNANDEZ H. [14] who in their respective studies affirm that adenomyosis with multifocal or diffuse localizations is the most frequent.
- **Associated lesions:** Endometriosis cases without associated lesions represented 55.86 followed by cases associating inflammatory lesions 18.02% then cases associating uterine leiomyoma 17.12%. This observation shows that endometriosis lesions may be associated with other benign or malignant lesions of a tumor or dystrophic nature. It is classic and joins that of other authors: BEN AISSIA NIZAR *et al.* [11] reported in their series that adenomyosis is rarely isolated, it is associated with fibromyoma in 62% of cases. KDOUS M. and Coll. [5] show in their series that adenomyosis on an operative specimen can be associated with leiomyomas in 32.18% of cases, endometrial hyperplasia in 13.79%, polyps in 5.74%, and atrophy in 3.44%.
- **The histological position in the utero-cervical locations:** Lesions of adenomyosis or uterine endometriosis of associated anatomical position, that is to say superficial and deep in relation to the endometrium, represented 49.21% followed by locations shallow 26.98%. This observation shows that lesions of uterine endometriosis or adenomyosis are most often multifocal lesions superficial and deep in relation to the endometrium. DEFFIEUX X. and Coll. [13] are of the same opinion and found during their study that adenomyosis with associated anatomical position, that is to say superficial and deep, is the most commonly encountered on hysterectomy specimens, 28% and 47.23%, respectively. The same authors report that the number of foci is variable and there is a correlation between the depth of myometrial invasion and the number of foci of adenomyosis.

## Conclusion

Endometriosis is a benign lesion affecting all segments of the female genital tract. It constitutes a polymorphic lesion with non-specific symptoms. It represents an affection of the young woman in full genital activity which can compromise her fertility. The pathological examination is the fundamental part of the diagnosis.

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