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Lower Genital Infections: Clinical and Etiological Aspects in the Urban Commune of Kalaban-Coro in Bamako, Mali

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Abstract **Original Research Article**

The aim was to assess the prevalence of lower genital infections, describe clinical symptomatology and main etiologies. ***Materials and methods*:** This was a prospective, descriptive, analytical study extending over a period of 12 months from 01 February2015 to 31 January 2016 in gynecology and obstetrics of the reference health center of Kalaban-coro (Mali). ***Results:*** Out of 899 consultations, 90 patients presented with lower genital infections, a frequency of 10.01%. The most represented age group was 20 to 35 years old with 61.1%. Housewives predominated the socio-professional strata with a frequency of 44.4%. The Bambara ethnic group was the most represented with a frequency of 21.1%. The majority of women resided in Kalaban-coro; The proportion of married women was the highest at 93.4%. The percentage of women living on a monogamous diet was 72.6% and patients who had a secondary level of education were the most represented with a frequency of 23.3%. Pelvic pain, desire for pregnancy, leucorrhoea were the most frequently encountered reasons for consultation with respective frequencies of 24.4%, 21.1% and 17.8%. There were 45.6% of malodorous leucorrhoea and Candida albicans was the most common germ with a frequency of 16.7%. The combination of two germs was more common with 5.6%. Lower genital infections are the most frequent reason for consultation in gynaecological consultation, they are associated with risk factors that are related either to the woman or to the environment. Their management must be rigorous in order to avoid complications related to the experience and obstetrical prognosis of patients.

Keywords: Lower genital infection, PV, ECBU, contributing factor.

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INTRODUCTION

Lower genital tract infections are very common conditions in gynecological practice. Their impacts on the frequency of abortions and preterm births, their consequences on neonatal prognosis and their links to HIV make lower genital infections a global public health problem. In many developing countries, STIs are among the top five diseases that lead adults to seek health care. These diseases are on the rise worldwide [13]. Vaginitis is the most common pathology among women consulting in venereology and more than a third of the reasons for consultation in gynecology. According to the WHO, it is estimated that 12% of the world's population aged 15 to 45 suffer from a curable STI [1]. In Mali in 2006 the frequency was 6% in Segou and 10% in Bamako [10]. In the absence of treatment, the evolution is towards the persistence or aggravation of functional signs affecting psychological balance and fertility. In addition, in women, lower genital infections can be responsible for prematurity, maternal-fetal infection, neonatal infection [10]. Lower genital infections are one of the most common

pathologies in gynecological consultations. The absence of epidemiological and clinical data in our department led us to initiate this work by setting ourselves as objectives.

OBJECTIVES

The aim was to assess the prevalence of lower genital infections, to describe the symptomatology clinic and the main etiologies at the gynecology-obstetrics unit of the reference health center of the municipality of kalaban-coro.

MATERIALS AND METHODS

It was a prospective, descriptive, analytical study spanning a 12-month period from 01 February 2015 to 31 June 2016 in gynecology and obstetrics of the reference health center of Kalaban-coro (Mali).

The study population: The study included all women who had an outpatient visit in our department.

Inclusion criteria: We took into account in this study all patients treated in our department for lower genital infection whose germ was found in the vaginal sample (PV) and who systematically performed a cytobacteriological examination of urine (ECBU).

Non-inclusion criteria: Any patient received in our ward with at least one symptom of lower genital infection in whom no pathogenic germ has been identified in the PV associated with ECBU. Patients who did not agree to participate in the survey.

The variables studied: Age, occupation, ethnicity, marital status, residence, level of education, occupation of spouse, Reason for consultation, Medical history surgical history (on the vulva, vagina or cervix), gynecological history, history, obstetrics state of pregnancy or not frequency of intimate grooming, disorders of sexual life, nature of underwear, products used for intimate grooming, ongoing treatment, frequency of sexual intercourse, number of sexual partners, Characteristics of leucorrhoea, inspection of the vulva, examination at the speculum, Germs found at the vaginal swab, result of the ECBU, Data were collected from a survey sheet and the records of all patients who consulted at the gynecology-obstetrics unit in whom at least one germ was found in the vaginal swab.

Data analysis: We did a simple entry of texts, tables and graphs on the World software 2007.La data entry and analysis was performed on the SPSS 23.0 fr software. The statistical test used will be the Khi^2 considered significant when $P< 0.05$.

Ethical considerations: Participation in the study is free and voluntary. Consent is obtained verbally. The anonymity of the patients was kept for the disclosure of the results. Participation in the study has no financial or material compensation for this study.

RESULTS

Epidemiological Aspects

During the period from 1 February 2015 to 31 January2016, we recorded 90 cases of lower genital infections out of a total of 899 outpatients, a frequency of 10.01%. The most affected age group is between 20-35 years or 61.1%, the extreme ages being 15 and 58 years the average age was 20 years. Housewives accounted for 44.4 per cent. Civil servants accounted for 52.2% in our study. The Bambara ethnic group represented the most concerned layer with a frequency of 21.1%. The majority of patients were married (93.4%). Monogamy was the most represented matrimonial regime with 72.6% of patients. The out-of-school were the most represented with 44.4%. These epidemiological aspects are summarized in Table 1.

Table 1: The epidemiological aspects of lower genital infections from 01 February 2015 to 31 January 2016 at the reference health center of Kalaban Coro (Mali)

Age range	**Number**	**Percentage**
≤ 19 years	10	11,1
20 years to 35 years	55	61,1
> 35 years	25	27,8
Profession	**Number**	**Percentage**
Housewife	40	44,4
Official	24	26,7
Student	17	18,9
Merchant	4	4,4
Other*	5	5,6
Spouse's occupation	**Number**	**Percentage**
Official	47	52,2
Worker	19	21,1
Merchant	6	6,7
Peasant	5	5,6
Student	3	3,3

No profession	1	1,1
Other*	9	10,0
Ethnic group	**Number**	**Percentage**
Bambara	19	21,1
Malinke	18	20,0
Fulani	16	17,8
Sarakolé	10	11,1
Sonrhaï	6	6,7
Dogon	4	4,4
Minianka	4	4,4
Bobo	2	2,2
Senufo	2	2,2
Other	9	10,0
Marital status	**Number**	**Percentage**
Bride	84	93,4
Bachelor	3	3,3
Divorcee	3	3,3
Matrimonial property regime	**Number**	**Percentage**
Monogamous bride	61	72,6
Polygamy bride	23	27,4
Educational attainment	**Number**	**Percentage**
Out of school	40	44,4
Secondary	21	23,3
Upper	15	16,7
Fundamental	14	15,6

Clinical Aspects

Pelvic pain was the most frequent reason for consultation with a frequency of 24.4%. A history of diabetes was found in 11.1% of patients. The paucigestes were the most represented with 31.1%. Nulliparous were the most represented with 37.8%. The history of abortion was found in 28.9% of patients. The history of abortion was found in 28.9% of patients. The history of abortion was found in 28.9% of patients. Patients reporting having only one sexual partner were in the majority with a frequency of 70.0%. Mixed toileting was practiced by 55.6% of our patients. Patients using household soaps for intimate toilets were the most represented with a frequency of 75.6%. The majority of patients performed intimate toileting after sexual intercourse, 45.6%. More than half of the patients used underwear without preference or 85.6%. Patients using traditional fillings were the most represented with a frequency of 47.8%.

Regarding the characteristics of leucorrhoea:

The whitish appearance was the most represented with a frequency of 93.4%. Poorly smelling leucorrhoea was present in 45.6% of patients. The association of dyspareunia and pelvic pain was the most common at 21.1%. Dyspareunia was found in 48.9% of patients. Deep dyspareunia was the most common with 47.7%. Healthy vulva was observed in 97.8% of patients. The vagina was inflammatory in 6.7% of patients. The cervix was inflammatory in 12.2% of patients. Thesyndromic approach of leucorrhoea: Poorly smelling leucorrhoea was more common with 3 3.4% in patients with Gardnerella vaginalis. Leucorrhoea + dyspareunia and vulvar burn + dysuria were more common with 50% in patients with Trichomonas vaginalis. Dyspareunia was the most common with 33.3% in patients with Escherichia coli. Curded leucorrhoea was more common with 36.9% in patients with Candida albicans. Table 2, 3 and 4 shows the summary of the clinical aspects of lower genital infections.

Table 2: The clinical aspects of lower genital infections from 01 February 2015 to 31 January 2016 at the reference health center of Kalaban Coro (Mali)

Reason for consultation	Number	Percentage
Pelvic pain	**22**	**24,4**
Desire for a child	19	21,1
Leucorrhoea	16	17,8
Dyspareunia	9	10,1
Dysuria	3	3,3
Vulvar pruritus	3	3,3
NPC	2	2,2

Reason for consultation	**Number**	**Percentage**
Pollakiuria	1	1,1
Burning urination	1	1,1
Infertility	1	1,1
Other*	13	14,5
Medical history	**Number**	**Percentage**
None	75	83,4
Diabetes	**10**	**11,1**
HTA	2	2,2
Sickle-cell anemia	2	2,2
HIV	1	1,1
Gestrity	**Number**	**Percentage**
Paucigeste	**28**	**31,1**
Nulligeste	21	23,3
Primigeste	18	20,0
Multi-gesture	17	18,9
Large multi-gesture	6	6,7
Parity	**Number**	**Percentage**
Nulliparous	**34**	**37,8**
Paucipare	26	28,9
Primiparous	14	15,6
Multiparous	12	13,3
Large multiparous	4	4,4
Abortions	**Number**	**Percentage**
Yes	**26**	**28,9**
No	64	71,1
Processing in progress	**Number**	**Percentage**
None	**76**	**84,4**
Oral antibiotic	12	13,4
Self-medication (NSAIDs and oral analgesics)	2	2,2
Number of sexual partners	**Number**	**Percentage**
A partner	**63**	**70,0**
Two to three partners	25	27,8
No partner	2	2,2
Quality of intimate toilet performed	**Number**	**Percentage**
Mixed	**50**	**55,6**
Vulvar	30	33,3
Intravaginal	10	11,1
Type of product for intimate toilet	**Number**	**Percentage**
Household soap	**68**	**75,6**
Antiseptic solution for external use	10	11,1
Mixed-use antiseptic solution	7	7,8
Simple water	5	5,5
Intimate toilet period	**Number**	**Percentage**
After reporting	**41**	**45,6**
At the end of menstruation	35	38,9
Daily grooming	12	13,3
No intimate toilet	2	2,2
Quality of underwear used	**Number**	**Percentage**
Mixed	**77**	**85,6**
Synthetic	7	7,8
Cotton	6	6,7
Hygienic habit	**Number**	**Percentage**
Traditional toppings	**43**	**47,8**
Modern toppings	34	37,8
Mixed	13	14,4

Table 3: The characteristics of leucorrhoea in lower genital infections from 01 February 2015 to 31 January 2016 at the reference health center of Kalaban Coro (Mali)

Color of leucorrhoea	**Number**	**Percentage**
Whitish	84	93,4
Yellowish	4	4 ,4
Greyish	2	2,2
Total	90	100,0
Smell of leucorrhoea	**Number**	**Percentage**
Odourless	49	54,4
Smelly	41	45,6
Functional signs	**Number**	**Percentage**
Dyspareunia + Pelvic pain	19	21,1
Leucorrhoea	14	15,7
Pelvic pain	13	14,4
Dyspareunia	11	12,2
Pelvic pain+Leucorrhoea	4	4,5
Leucorrhoea + vulvar pruritus	4	4,5
Dyspareunia +Pollakiuria	4	4,5
Leucorrhoea+ Dyspareunia	3	3,3
Pollakiuria	2	2,2
Dysuria	2	2,2
Burning urination+Dysuria	2	2 ,2
Pollakiuria+Dysuria	2	2,2
Dyspareunia+Dysuria	2	2,2
Dyspareunia+vulvar pruritus	2	2,2
Dyspareunia+Burning Voiding	1	1,1
Vulvar pruritus	1	1,1
Leucorrhoea +Dyspareunia +Dysuria	1	1,1
Pelvic Pain+Metrorrhagia	1	1,1
Vaginal pruritus+Pelvic pain+Dyspareunia	1	1,1
Dysuria+Burning Voiding	1	1,1
Disorders of sexual life	**Number**	**Percentage**
None	46	51,1
Dyspareunia	44	48,9
Vaginismus	0	0,0
Frigidity	0	0,0
Total	90	100
Dyspareunia	**Number**	**Percentage**
Deep dyspareunia	21	47,7
Total dyspareunia	12	27,3
Superficial dyspareunia	11	25,0
Vulvar examination	**Number**	**Percentage**
Healthy vulva	88	97,8
Vulvitis + scratching lesion	2	2,2
Examination of the vagina	**Number**	**Percentage**
Macroscopically healthy vagina	84	93,3
Vaginitis	6	6,7
Examination of the cervix	**Number**	**Percentage**
Macroscopically healthy collar	79	87,8
Cervicitis	11	12,2

Table 4: Syndromic approach to leucorrhoea in lower genital infections from 01 February 2015 to 31 January 2016 at the reference health center of Kalaban Coro (Mali)

Gardnerella vaginalis	**Number**	**Percentage**
Poorly smelling leucorrhoea	3	33,4
Burning urination	2	22,2
Dyspareunia	2	22,2

Gardnerella vaginalis	**Number**	**Percentage**
Pelvic pain	1	11,1
Dysuria	1	11,1
Trichomonas vaginalis	**Number**	**Percentage**
Vulvar burn+dysuria	1	50,0
Leucorrhoea nausea greenish abundances +dyspareunia	1	50,0
Escherichia coli	Frequency	Percentage
Pollakiuria	4	22,2
Dysuria	3	16,7
Dyspareunia	**6**	**33,3**
Pollakiuria+Dysuria	2	11,1
Dyspareunia+Pollakiuria	2	11,1
Leucorrhoea	1	5,6
Candida albicans	**Number**	**Percentage**
Curded leucorrhoea	**7**	**36,9**
Vulvar pruritus	3	15,8
Burning urination	2	10,5
Dyspareunia	5	26,3
Pelvic pain	2	10,5

The main germs isolated from analytical laboratories

Candida albicans was the most common isolated germ with a frequency of 16.7%. Escherichia coli and Candida albicans were the most common association with a frequency of 40/%. Escherichia coli was the most common pyogenic germ with a frequency of 40%. Routine cytobacteriological examination of urine was non-sterile in 50% of samples. The main isolated germs are shown in Table 5.

Table 5: The main germs isolated in lower genital infections from 01 February 2015 to 31 January 2016 at the reference health center of Kalaban Coro (Mali)

Pathogens	**Number**	**Percentage**
Candida Albicans	15	16,7
Escherichia coli	14	15,6
Klebsiella	12	13,4
Negative GRAM bacilli	10	11,1
Gardnerella vaginalis	8	8,9
Enterococcus faecalis	6	6,7
Aeromonas hydrophila	4	4,4
Mycoplasma	4	4,4
Positive GRAM cocci	3	3,3
Trichomonas vaginalis	2	2,2
Serratia liquefacens	2	2,2
Candida albicans+ Escherichia coli	2	2,2
Gonococci	1	1,1
Candida albicans+Staphylococcus aureus	1	1,1
Pseudomonas aeruginosa	1	1,1
Enterococcus faecalis+Escherichia coli+Aeromonas hydrophila	1	1,1
Staphylococcus aureus	1	1,1
Ureaplasma Uréalyticum+Candida albicans	1	1,1
Gardnerella vaginalis+Escherichia coli	1	1,1
Chlamydia	1	1,1
Pyogenic germs	**Number**	**Percentage**
Escherichia coli	14	35,0
Klebsiella	12	30,0
Enterococcus faecalis	6	15,0
Aeromonas Hydrophila	4	10 ,0
Serratia liquefacens	2	5,0
Pseudomonas aeruginosa	1	2,5
Staphylococci aureus	1	2,5
Association of two PV germs	**Number**	**Percentage**

Candida albicans+ Escherichia coli	2	40,0
Candida albicans+Staphylococcus aureus	1	20,0
Ureaplasma Uréalyticum/Candida albicans	1	20 ,0
Gardnerella vaginalis + Escherichia coli	1	20,0
ECBU Result	**Number**	**Percentage**
Sterile	45	50,0
Non-sterile	45	50,0

Germs	**≤19 years**	**20-35 years**	**>35 years**	**Total**
Candida albicans	2	**9**	4	**15**
Escherichia coli	1	**10**	3	**14**
Klebsiella	1	4	7	12
Negative GRAM bacillus	1	7	2	10
Gardnerella vaginalis	2	5	1	8
Enterococcus faecalis	1	5	0	6
Association of two germs	0	4	1	5
Mycoplasma	0	3	1	4
Aeromonas hydrophila	1	2	1	4
Positive GRAM cocci	0	3	0	3
Trichomonas vaginalis	0	2	0	2
Serratia liquefacens	0	1	1	2
Gonococcus	0	1	0	1
Enterococcus +Escherichia+Aeromonas	0	1	0	1
Staphylococcus aureus	0	1	0	1
Pseudomonas aeruginosa	0	1	0	1
Chlamydia	0	0	1	1
Total	**9**	**59**	**22**	**90**

Fisher test: **P=0.022**

Candida albicans is mainly represented in patients aged 20 to 35 years with a statistically significant difference (p=0.022**)**

DISCUSSION

The frequency recorded and reported in this work concerns only the obstetrics and gynaecology department of the Reference health center of the municipality of Kalaban Coro. We recorded 899 new consultations in the external consultation room during the study period from February 1, 2015 to January 31, 2016, or 12 months. A total of 90 cases of lower genital infections were recorded, a frequency of 10.01%, IDRISS SINCLAIR. F [11] at the Cbetween reference health of commune II of Bamako reported a frequency of 12.6%. Traore O [19] in Ségou reported a frequency of 13.5%. TOWA S [17] reported a frequency of 30.77% in a similar study at CHU Gabriel TOURE; this very high rate compared to that of our study could be explained by the fact that the inclusion criterion in this study took into account all patients treated for lower genital infections during the study period without consideration of PV. Age: in the sample, the minimum age is 15 years and maximum is 58 years. The most represented age group is 20 to 35 years with 61.1% of cases. In Senegal, THIAM D. found that the maximum peak is between 16 and 30 years [16]. In Mali, in a study in 2014 IDRISS SINCLAIRF [11] found that the age group from 19 to 34 years is the most represented with 76.64%. TRAORE O [19] also found a frequency of 47% between 20 and 34 years. This could be explained by the fact that in this age group, sexual activity is more frequent. In our study all socio-professional strata are represented. Among them, housewives predominate with a frequency of 44.4%. The same finding was made by IDRISS SINCLAIR F with 38.8% [11] TRAORE O with 60.5% [19] SOUMARE D with 69.9% [15]. This can be explained by the non-increase in the school enrolment rate and consequently a low percentage of women civil servants in our country. During our study, the majority of women resided in Kalaban-coro with a frequency of 32.2%. This frequency is logically conceived by the geographical location of the reference health center that was our framework of study. In our survey, the proportion of married women is the highest (93.4% compared to 3.3% of singles). The same observation was made by IDRISS SINCLAIR. F 88.2% married women vs. 10.6% singles [11] TRAORE O 70% married women vs. 30% single, SOUMARE. D with 75.2% of married women against 22.3% of single women [15]. On the other hand for THIAM D singles represent 78.8%, [16] the percentage of singles is very important compared to that of brides, a notion reported by DRAMOLA and OYEDIARAN [5] in Lagos. It should be noted that in MALI, the female population marries relatively early. SOUMARE D [15] found an average age of 17 at first marriage. The matrimonial regime: The percentage of women living in a

monogamous regime 72.6% is higher than that of women living in the polygamous regime 27.4%. IDRISS SINCLAIR F reported a frequency of 64.7% monogamy versus 24.7% polygamy [11]. TRAORE O reported a frequency of 72.8% monogamy versus 27.4% polygamy [18]. SOUMARE D [15] reported a frequency of 55.9% monogamy versus 44.1% polygamy. DIALLO R [6] also reported a frequency of 60% monogamous versus 38% polygamous. TOWA S [17] finds that patients who had one or more co-spouses seemed to be protected against lower genital infection when compared with those who did not have co-wives, which reflects our study but is contrary to the literature, this could be explained by the fact that monogamous couples are more numerous than polygamists in general in our society. The Bambara ethnic group was the most represented with a frequency of 21.1%. Nation found by Idriss Sinclair F [11] and TRAORE O [19] in the studies conducted respectively in Bamako and Ségou. This distribution of ethnic groups follows the general distribution of the population in Bamako. Level of study: patients who had a secondary, higher, fundamental level of education were the most represented with respective frequencies of 23.3%, 16.7% and 15.6%. This could be explained by the increasing literacy rate in our society. Reason for consultation: pelvic pain, desire for pregnancy, leucorrhoea were the most frequently encountered reasons for consultation in patients who presented with lower genital infections with respective frequencies of 24.4%, 21.1% and 17.8%. IDRISS SINCLAIR F [11] finds as the most frequent reasons for consultation in descending order the desire for pregnancy, pelvic pain leucorrhoea TOWA S [17] finds as the most frequent reasons for consultation in descending order leucorrhoea, vulvar pruritus, dyspareunia and pelvic headaches. However TOWA S [17] in its study found that one in four women who had a lower genital infection expressed a desire for pregnancy notion found in our study. Patients with lower genital infections followed for NPC had a frequency of 2.2% in our study. Contributing factors: A history of diabetes was found in 11.1% of patients in our study IDRISS SINCLAIR F [11] found 25.9% history of urogenital infection in a similar study conducted at the CSRéf of the commune II of Bamako TRAORE O [19] found 40.5% history of lower genital infection in a similar study conducted in Segou in Mali. Age at first sexual intercourse and condom use were not addressed in the face of the reservations expressed by the patients interviewed. According to Mali's DHS IV, the age of first sexual intercourse was 17 years. Among patients with low genius infections 63.3% had a frequency of 2 to 3 sexual intercourse per week for the past three months, this could be explained by the high rate of married patients. The majority of patients with lower genital infections, more than half, used underwear of various kinds without preference (synthetic cotton ....). The majority of patients performed mixed toilets (55.6%). Intimate toileting was performed after sex in 45.6% of patients and 75.6% used neutral soaps. Despite the 47.8% of patients who used only traditional fillings, 37.8% used modern toppings and 14.4% alternated modern and traditional trims. In view of the clearly increasing literacy of women in our country, we note that feminine hygiene is still derisory in society. Incriminated germs: the whitish appearance of leucorrhoea was the most represented with a frequency of 93.4% followed by the yellowish color 4.4%, IDRISS SINCLAIR F [11] in the same study finds a frequency of 69.3% for the whitish color and 20% for the grayish color TRAORE O [19] In the same study finds a frequency of 53% for the whitish color and 15% for the grayish color. There were 54.4% of odorless leucorrhoea. Compared to the different pathogens found in vaginal samples in the etiology of vaginitis, the publications are numerous and the results are varied from one author to another. The association of infectious agents was found in 5.6% of patients in our study IDRISS SINCLAIR F [11] found a frequency of 31.2%TRAORE O [19] found a frequency of 40% and DIARRA D [7] 41% these high rates explain the difficulties of treatment based on leucorrhoea. For Candida albicans: In our study, 16.7% of the women examined had a Candida albicans infection. DIALLO R [6] and Diarra D [7] find similar frequencies respectively 58.78% 56.5%. Candida albicans was the most frequent germ in all socioprofessional classes it was also found in majority in all age groups in their study, KEITA A [12] reported a frequency of 15.62 %. SAMAKE S [14] also reported 15.5%. These frequencies are lower than ours. For pyogenic germs: in our study 40% of the women examined had an infection with pyogenic germs, mainly Escherichia coli. IDRISS SINCLAIRF [11] reported a frequency of 8.9%, TOWA S [17] found a frequency of 14% of pyogenic germs predominantly S aureus of 5.9% followed by E coli of 5%. For Trichomonas vaginalis: in our study, 2.2% of the women examined had a Trichomonas vaginalis infection. GUINDO A [9] found 12.9% Trichomonas vaginalis infections and CONUO [4] 17.80%. For gonorrhoea: during our study, we found 1.1% of Neisseria Gonorrhoeae infections. DOUCOURE A [8] reported a frequency of 6% in his study and TRAORE O [19] 2%. For Gardnerella vaginalis: In our study, 8.9% of the women examined had a *Gardnerella vaginalis* infection. TRAORE H [18] reported a frequency of 12%, SOUMARE D [36] also reported a frequency of 7% TOWA S [17] reported a frequency of 41.7%. Mycoplasma and Chlamydia: were found with a frequency of 4.4% and 1.1% respectively during our study. Special case of pregnancy: During our survey, we met 2 pregnant women or a prevalence of 2.2%. Regarding the prevalence of Candida albicans in pregnant women, the authors below found the following rates: Catalyud [3] during a parasitological survey in Toulouse in 180 pregnant women with leucorrhoea, 40% of them are carriers of Candida albicans. In Mali, SOUMARE D [15] found a prevalence of 49.9%. In Bamako, a study by TRAORE H in 170 pregnant

women in 1991 [18] and that of DIALLO R [6] in 1993 found respectively a prevalence of 45.83% and 65.17% of Candidas albicans. This evolution in the prevalence rate of Candida albicans compared to other infections in pregnant women could be explained by the fact that during pregnancy, there is acidification of the vaginal environment in relation to hormonal disturbances [2]. Indeed, in pregnant women, there is a hypersecretion of ovarian hormones: folliculin and especially progesterone which increase indirectly under the action of gonadotropic hormones, causing a hypersecretion of glycogen continuously. This promotes the development of *Candida albicans* [3].

Limitation of the Study

In the course of our work we encountered a number of difficulties. The reluctance of some patients to the questions addressed to them: the non-feasibility of ECBU and PV in our laboratory, the cost of additional tests.

CONCLUSION

Lower genital infections are a common reason in gynecological outpatient consultations, they are associated with risk factors that are related either to the woman or to the environment. Their management must be rigorous in order to avoid gynecological and obstetrical complications.

Conflict of Interest: None

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