International Journal of Advanced Research and Review

www.ijarr.in

STUDY OF THE VAGINAL FLORA OF PREGNANT WOMEN IN THE 3RD QUARTER AT THE IBN TOFAIL HOSPITAL CHU MED VI

R.Rada[1], R.Nakhli , S. Khayati[1], L. Ait said [1], K. Zahlane[1] [2]

[1]Laboratory of Microbiology of Ibn Tofail hospital, Marrakesh
[2]Faculty of medicine and pharmacy, Cadi Ayyad University, Marrakesh, Morocco

ABSTRACT

Background: Vaginal infections are a risk factor for preterm delivery. In this study, we sought to evaluate the vaginal flora of pregnant women receiving opioid maintenance therapy (OMT) in comparison to non-dependent, non-maintained controls.

Methods: This is a prospective study spanning 6 months from May 2019 to September 2019. Vaginal swabs from the ectocervix were taken from 120 pregnant women in the last trimester of pregnancy in the obstetric genecology department at Ibn Tofail Hospital.
A bacteriological study was realised in the laboratory.

Results: Of the 120 pregnant women, 55% were asymptomatic. The most frequent symptomatology was represented by leucorrhoea, reported by 31% of women. Lactobacillus was the most isolated bacteria with a rate of 40% , followed by Gardnerella vaginalis (32%) , only 8% cases had levures. Regarding genital conditions, vaginitis was found in 30% of women, followed by yeast infections in 22% and vaginosis in 20%

Conclusions: The last trimester of pregnancy is a period of high rates of genital carriage of risky germs and pathological genital conditions at risk of obstetrics and infection. this is the reason why rigorous preventive measures are necessary to avoid contamination and subsequently improve the foetal prognosis.

Keywords: Bacterial vaginosis, Infection, Colonisation, Pregnancy

INTRODUCTION

The germs responsible for perinatal infection are those which usually colonize or infect the maternal genital tract [1].

In the physiological state, there are three main “ecological” groups: group I: normal carrier bacterial flora adapted to the vaginal cavity (Döderlein flora). Group II: bacterial flora of frequent carriage where the usual hosts of the digestive flora are found. Group III: bacterial flora of exceptional carriage composed of usual hosts of the oropharyngeal flora.

Maternal-fetal infections are very widespread in our context, they are most often due to germs colonizing or infecting the maternal genital tract, the study of the vaginal flora and the determination of pathological genital states in pregnant women would make it possible to better apprehend them. The objectives of our work are to determine the bacterial ecology and pathological genital states in pregnant women as well as the germs responsible for maternal-fetal infection.

MATERIAL AND METHOD

This is a prospective study spanning 6 months from May 2019 to September 2019.

Vaginal swabs from the ectocervix were taken from 120 pregnant women in the last trimester of pregnancy in the obstetric gynecology department at Ibn Tofail Hospital.

The cytobacteriological study by direct examination in the fresh state between slide and coverslip and after gram staining as well as the cultivation on enriched chocolate media and Uriselect of the samples, made it possible to define the bacterial ecology and the pathological genital states.

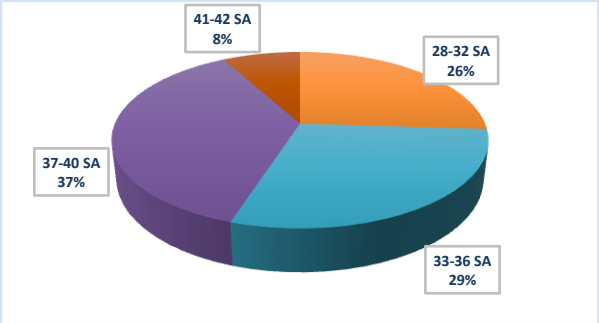
The Api 20NE biochemical identification galleries, Esculin bile test and the antibiogram by the agar diffusion technique were also used for the bacterial identification of certain cases of vaginitis.

RESULTS

Our study was carried out in 120 pregnant women whose average age was 29 years (18-43 years).

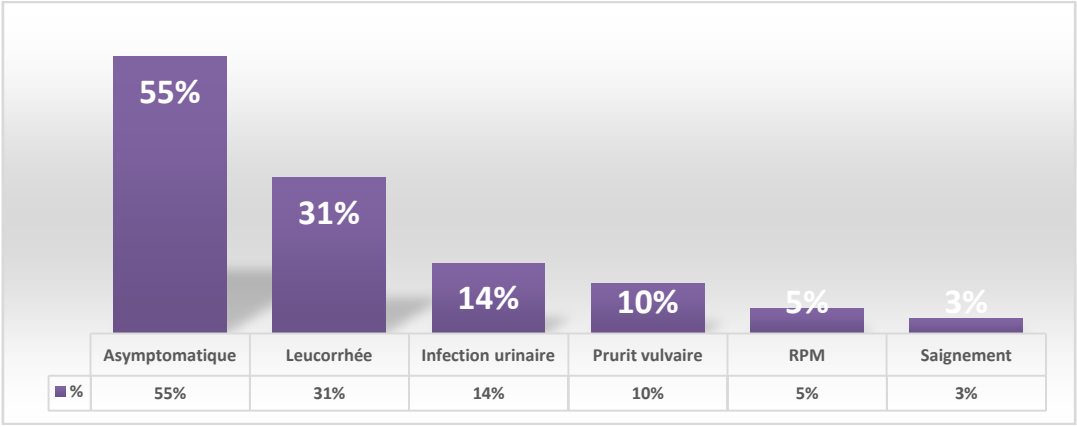
The pregnancy term for parturients is shown in Figure 1.

Figure 1: Term of pregnancy of parturients



Of the 120 pregnant women, 55% were asymptomatic. The most frequent symptomatology was represented by l eucorrhoea, reported by 31% of women (Figure 2).

Figure 2: Clinical signs reported by parturients



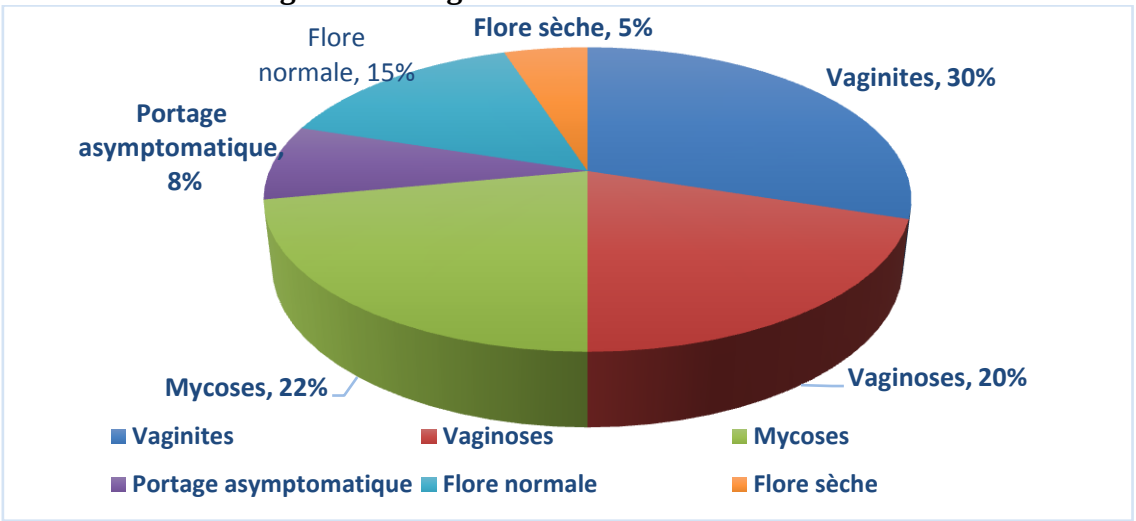
The germs isolated by the microbiological study are shown in Table 1.

Table 1: Germs isolated in pregnant women

Groupe écologique vaginal	Pourcentage
Groupe I: Lactobacillus	**40%**
Groupe II:	
Gardnerella vaginalis	32%
Enterococcus	19%
Proteus mirabilis	16%
Mobiluncus	11%
E. coli	10%
Streptococcus	5%
Enterobacter cloacae	4%
Klebsiella	1%
Groupe III:	**0%**
Autres: Levures	**8%**

Regarding genital conditions, vaginitis was found in 30% of women, followed by yeast infections in 22% and vaginosis in 20% (Figure 3)

Figure 3: The genital states found in our series



DISCUSSION

The normal bacterial ecology of the vagina can be defined according to the following composition: Predominance of lactic acid bacteria, Amount of bacteria not exceeding 107 - 108 bacteria per gram of secretions, Anaerobic / aerobic ratio of 2 to 5 / l, Presence of Gardnerella vaginalis in 5 to 60% of patients, Mycoplasmas in at least 15 to 30% of patients and Mobiluncus in 0 to 5% of patients [2].

Our study revealed a high frequency of genital carriage of bacteria at risk of maternofetal infection in women in the last trimester of pregnancy and pathological genital conditions.

Perinatal bacterial ecology is dominated by S. aureus and E. coli in Africa and Latin America [1].

In industrialized countries, S. agalactiae still remains the predominant germ, while its rarity is increasing in tropical Africa [3].

In our study, the distribution of germs identified according to vaginal ecological groups showed a predominance of group II germs and an absence of group III germs.

This is in agreement with the data in the literature [2].

In our prospective study we found that 20% of women had bacterial vaginosis, which explains why in these women the lactobacillary flora had completely disappeared in favor of an abundant mixed flora. This prevalence was also found by Gondo et al. in 2009 [4]. However, our results remain above the prevalence of bacterial vaginosis in parturients in the United States [5]

Epidemiological studies have made it possible to isolate certain risk factors associated with bacterial vaginosis: such as African origin, smoking, type of contraception, vaginal hygiene (use of vaginal toilets) and sexual activity (recent change of sexual partner , increasing number of sexual partners, homosexual relations) [6, 7, 8] In our study, the states of vaginosis and vaginitis were found in 50% of cases, but this high rate of pathological genital states does not constitute a element of prediction of a significant occurrence of maternofetal infection: only the rate of maternofetal infection at the end of these pregnancies could inform us.

CONCLUSION

The last trimester of pregnancy is a period of high rates of genital carriage of risky germs and pathological genital conditions at risk of obstetrics and infection.

Prophylactic measures targeting genital infection with S. agalactiae cannot be applied in areas of Africa where this germ remains rare and should focus on genital enterobacteriaceae infection.

BIBLIOGRAPHIE

[1] B. Balaka,A. Agbèrè, A. Dagnra, S. Baeta, K. Kessie, K. Assimadi. Portage génital bactérien au dernier trimestre de la grossesse et infection néonatale précoce. Archives de pédiatrie 12 (2005) 514–519

[2] Rouquet Y. Prélèvement vaginal durant la grossesse. J Pediatr Puériculture 2000;13(suppl 1):10–3.

[3] Robillard PY, Hulsey TC, Pérez JM, et al. Evaluation of neonatal sepsis screening in a tropical area, Part II: Evaluation of intrapartum chemoprophylaxis Protocol. West Indian Med J 2001;50:37–41.e.
[4] Gondo F, da Silva MG, Polettini J, et al. Vaginal flora alterations and clinical symptoms in low-risk pregnant women. Gynecol Obstet Invest 2011 ; 71 : 158-62.
[5] Delaney ML, Onderdonk AB. Nugent score related to vaginal culture in pregnant women. Obstet Gynecol 2001 ; 98 : 79-84
[6] Mashburn J. Etiology, diagnosis, and management of vaginitis. J Midwifery Womens Health 2006;51:423-30.
[7] Marrazzo JM, Koutsky LA, Eschenbach DA, Agnew K, Stine K, Hillier SL. Characterization of vaginal flora and bacterial vaginosis in women who have sex with women. J Infect Dis 2002;185:1307-13.
[8] Centers for Disease Control and Prevention, Workowski KA, Berman SM. Sexually transmitted diseases treatment guidelines, 2006. MMWR Recomm Rep. 2006;55(RR-11):1-94