

Prevalence of aerobic vaginitis among different age groups of symptomatic patients



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Introduction

Aerobic vaginitis is a recently defined clinical entity and is characterized by an alteration in the vaginal bacterial flora (deficient or lacking lactobacilli) and the isolation of aerobic microorganisms (cocci or bacilli) from vaginal cultures of symptomatic patients. Since the prevalence of aerobic vaginitis is still largely unknown, we sought to evaluate the prevalence of aerobic vaginitis among four different age groups of symptomatic patients.

Materials and Methods

Over a period of 5 years (August 2008-August 2013), vaginal samples from 3414 consecutive outpatients presenting with signs and symptoms of vaginitis at the 2nd Department of Obstetrics and Gynecology of Aretaieio University Hospital were investigated through wet mount microscopy and cultures. Samples were cultured under standard conditions and the identification of the isolated strains was carried out with the API System and the automated system VITEK 2 (BioMerieux, Marcy l'Etoile, France). Only cases with clear and significant overgrowth of one aerobic microorganism were included in this analysis. Patients were divided in four age groups: 442 girls 2-17 years, 1165 non-pregnant reproductive age women 18-45 years, 1264 pregnant women 18-45 years and 543 postmenopausal women (> 50 years).

References

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Results

In the different groups studied, aerobic pathogens were isolated in 130/442 (29.4%) of 2-17 years old girls, in 131/1165 (11.2%) of non pregnant reproductive age women, in 203/1264 (16.1%) of the pregnant women, and finally, in 115/543 (21.2%) of the postmenopausal women. The prevalence of the different isolated pathogens in each group are presented in the following table.

Pathogens	Girls n=130 (29.4%)	Reproductive age n=131 (11.2%)	Pregnant n=203 (16.1%)	Menopausal n=115 (21.2%)
<i>S. agalactiae</i>	7.7%	40.4%	23.6%	35.7%
<i>Streptococcus spp</i>	13.1%	0%	1.5%	3.5%
<i>Enterococcus spp</i>	21.5%	29.0%	33.0%	21.7%
<i>S. aureus</i>	3.1%	0.8%	1.5%	1.7%
CNS	3.8%	1.6%	5.4%	3.5%
Enterobacteriaceae	50.8%	28.2%	35.0%	33.9%

Conclusions

The prevalence of aerobic vaginitis was not negligible in the groups studied, in particular in children and postmenopausal women. Vaginal microorganisms most commonly associated with aerobic vaginitis were found to be streptococci (mainly *S. agalactiae* and *Enterococcus spp*) and Enterobacteriaceae. Aerobic vaginitis is a clinical entity still under-diagnosed by medical specialists worldwide. In order to draw safe conclusions about the clinical significance and since the implications of undiagnosed and undertreated cases of aerobic vaginitis are still unknown, further studies comparing the prevalence of aerobic vaginitis in symptomatic versus asymptomatic women together with the outcomes, are warranted.