

TITLE: *Stenotrophomonas maltophilia* ANOVAGINAL COLONIZATION AMONG PREGNANT WOMEN IN RIO DE JANEIRO BEFORE AND AFTER THE ONSET OF THE COVID-19 PANDEMIC

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Stenotrophomonas maltophilia is an important agent of nosocomial infections and commonly resistant to a wide variety of antibiotics. Few reports have highlighted the emerging role of these multidrug-resistant organisms in perinatal infections and vertical transmission, but how frequent *S. maltophilia* can be found colonizing pregnant women is still unknown. In this study, *S. maltophilia* anovaginal colonization was evaluated among 925 pregnant women at 35-37 gestational weeks attended at a public maternity in Rio de Janeiro from January 2019 to August 2021. Anovaginal specimens were submitted to a selective pre-enrichment step, streaked onto chromogenic medium (CHROMagar™ mSuperCARBA™) and colonies were identified by MALDI-TOF MS. A total of 15 (1.6%) pregnant women were colonized by *S. maltophilia*. Comparing scenarios before (January 2019 to March 2020) and during the COVID-19 pandemic (May 2020 to August 2021), *S. maltophilia* anovaginal colonization rate nearly doubled, from 1.3% to 2%. Among pregnant women who were colonized by *S. maltophilia*, nearly half (6; 40%) had pre-existing pathologies such as diabetes and arterial hypertension, while 20% (3) reported using antibiotics during pregnancy and 26.7% (4) reported having urinary tract infection during pregnancy. Our results suggest that, despite still at low frequencies, there is an increasing trend on *S. maltophilia* anovaginal colonization among pregnant women in Rio de Janeiro after the onset of the COVID-19 pandemic. Personal and behavioral measures related to the mitigation of the pandemic, as well as changes in clinical practices such as the use of antibiotics, are changing the dynamic of bacterial infectious diseases and may be pushing the emergence and selection of multidrug-resistant bacteria colonizing pregnant women. These observations reinforce the need for a continuing surveillance of potential antibiotic-resistance threats among the perinatal population.

Keywords: *Stenotrophomonas maltophilia*, pregnant women, COVID-19 pandemic.

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