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PII: S0002-9378(22)02589-3
DOI: https://doi.org/10.1016/j.ajog.2022.12.311
Reference: YMOB 14900


Received Date: 17 July 2022
Accepted Date: 21 December 2022

Please cite this article as: Jiang F, Li D-Z, Antibiotic treatment for intraamniotic inflammation in threatened midtrimester miscarriage, American Journal of Obstetrics and Gynecology (2023), doi: https://doi.org/10.1016/j.ajog.2022.12.311.

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Antibiotic treatment for intraamniotic inflammation in threatened midtrimester miscarriage

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Conflicts of interest: The authors report no conflict of interest.

Financial support: None.

Word count (main text): 400
TO THE EDITORS:

A pregnancy loss in the second-trimester, known as midtrimester miscarriage (MTM), is a hard and sad experience, having adverse effects on physical and mental health. There are several known causes of MTM, including chromosome problems, infection, antiphospholipid syndrome, genetic, structural, and anatomical reasons. \(^1\) Recently, Oh et al. \(^2\) examined the frequency of intraamniotic infection/inflammation and the effect of antibiotics in 17 patients with threatened MTM and intact membranes before 20 weeks’ gestation. They reported that although microorganisms could not be detected in most cases using amniotic fluid culture for aerobic and anaerobic bacteria and genital mycoplasmas, and polymerase chain reaction for Ureaplasma species, the prevalence was 88%. Antibiotic treatment achieved an overall success rate of 40% in eradicating intraamniotic inflammation or delivery after 34 weeks’ gestation. The authors concluded that it is possible that anti-inflammatory agents may have a role to play in the management of patients with threatened MTM in the presence or absence of infection. However, this study raises some important issues which should be addressed.

Criteria for the diagnosis of intraamniotic inflammation/infection depended on the positive invasive testing with amniocentesis. Was an invasive procedure performed for investigation of intraamniotic inflammation/infection in all patients with threatened MTM during the study period? In other words, was this a routine clinical algorithm for treating threatened MTM at their center? Were the amniotic fluid samples sent for genetic testing simultaneously? We can found in this study that in those with cervical dilatation ≥4 cm at the time of sterile speculum examination, antibiotic treatment failed in all cases. This finding confirmed the known impression that cervical insufficiency was the leading cause of MTM. \(^3\) Were follow-up cervical length assessments conducted in patients with no or mild cervical dilatation at antibiotic treatment initiation? Based on the findings of high prevalence of intraamniotic inflammation/infection in patients with cervical dilatation, should late cervical cerclage be performed only after an invasive testing to exclude the inflammation/infection?
Although this study was conducted eight years previously (2004-2014), the authors did not provide the long-term follow-up information of the survivals. This information is especially important, considering that the antenatal exposure to intra-amniotic inflammation is a strong and independent risk factor for the subsequent development of cerebral palsy at the age of three years. If this association was also present in this study, it seems that the antibiotics with only a success rate of 40% for MTM is not a favorable treatment.

References