Contents lists available at ScienceDirect

Asian Pacific Journal of Reproduction

journal homepage: www.apjr.net

Original research http://dx.doi.org/10.1016/j.apjr.2016.10.007

Microorganism spectrum of nonspecific vaginitis in women of infertile couples recognized by s-IgA uterine cervix secretion

Muhammad Anas[1*,#], I Wayan Arsana Wiyasa[2,#], Slamet Riyanto[3], Teguh Wahyu Sardjono[4,#], Aulani'am Aulani'am[5,#], Sumarno Reto Prawiro[3,#]

[1]*Doctorate Program of Biomedicine, Faculty of Medicine, Brawijaya University, Malang, Indonesia*

[2]*Laboratorium of Obstetrics and Gynecology, Saiful Anwar Public Hospital, Malang, Indonesia*

[3]*Laboratorium of Microbiology, Faculty of Medicine, Brawijaya University, Malang, Indonesia*

[4]*Department of Parasitology, Faculty of Medicine, Brawijaya University, Malang, Indonesia*

[5]*Laboratorium of Biology, Faculty of Veterinary, Brawijaya University, Malang, Indonesia*

ARTICLE INFO

Article history:
Received 12 Aug 2016
Received in revised form 24 Oct 2016
Accepted 24 Oct 2016
Available online 3 Nov 2016

Keywords:
Antibiotic sensitivity test
Bacteria
Cross-immunity
Infertile women
Nonspecific vaginitis

ABSTRACT

Objective: To explore the possible causes of infertility that occurs in Mojokerto, East Java, Indonesia.

Methods: The study was conducted by collecting biographical data in general and through clinical examination of all infertile couples. Other collected data included profiles of bacteria found in the vagina and an antibiotic sensitivity test of bacteria that can be isolated. To determine the possibility of antibodies against sperm a western blot examination of bacterial proteins in fluid secretions obtained from the vagina was carried out first.

Results: The results show that microorganisms were identified from the female reproductive tract of infertile couples dominated by *Staphylococcus aureus* (*S. aureus*) (27%) and *Escherichia coli* (27%), and sensitivity tests of antibiotics vary greatly. One of the microorganisms particularly *S. aureus* that found in large number was done western blotting using s-IgA cervix uteri as an antibody recognized Omp's with molecular weight, 52 kDa, and 49 kDa.

Conclusion: One of the bacteria species *S. aureus* that infects the vagina and causes nonspecific vaginitis can provoke an adaptive immune response by producing s-IgA. Difference MW of OMP *S. aureus* can stimulate immune response among women of infertile couples.