

Pathophysiology of Chlamydia and Bacterial vaginitis

Name

Course

Institution Affiliation

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Chlamydia

Chlamydia infection is caused by a bacterium called *Chlamydia trachomatis* through unprotected sex with an infected partner. The chlamydia bacteria attacks and infects the host cells then depend on them to get their nourishment for survival. In doing so they cause clinical manifestations in women like abdominal pains, low grade fever and large quantities of yellowish foul smelling discharge in women.

Azithromycin drug is selected due to its pharmacokinetic properties that make suitable in the treatment of STIs. Other alternative antibiotics recommended by CDC include Doxycycline, erythromycin, levofloxacin and ofloxacin. According to McMullan & Mostaghim (2015) for patients using Azithromycin, the practitioner should monitor the international normalized ratio (INR) carefully if the patient is managing heart diseases with warfarin since it is a blood thinner. At the same time patients with conditions like arthritis and on colchicine concentrations should use alternative treatment since Azithromycin may increase colchicine concentrations leading to toxicity. Many patients tolerate Azithromycin but between 1-5% experience side effects like dizziness, headache and gastrointestinal upsets.

Bacterial Vaginitis

Bacterial vaginitis is the inflammation of the vagina due to vaginosis (pathogenic infection of the vagina) or other factors like reduced female hormone estrogen, irritants or allergies. In the context of this paper bacterial vaginosis emanating from the complex alterations in the vaginal flora leading to a decrease in the usual lactobacilli and the increase of harmful bacteria like *Gardnerella vaginalis* and *Mycoplasma hominis* (Bertini et al., 2017). The resulting imbalance irritates the vagina tissues thereby causing vaginitis. The BV infection may manifest

itself as general itching, burning and redness accompanied by a thin, grey or milky discharge with an unpleasant fishy smell.

The drug selected in the treatment of BV is Tinidazole since evidence-based practice indicates that it can combat metronidazole – resistant pathogens (Abbaspor, Rabee & Najjar, 2014). Just like metronidazole, concurrent use of tinidazole is contraindicated with alcohol as it may trigger a disulfiram like reaction. Although it is not known if co-administration of lithium and tinidazole requires close monitoring since in the case of metronidazole it is known to increase the risk of lithium toxicity.

Tinidazole being a nitro imidazole derivative may increase the impact of Warfarin and other coumarin anticoagulants ending with a prolongation of prothrombin time. For patients on this type of anticoagulant therapy, there is need to adjust the dosage of these oral anticoagulant when tinidazole is co-administered and up to eight days after its discontinuation. The side effects experienced by a patient on tinidazole include headache, dizziness and anorexia though compared to those metronidazole they are more favorable.

References

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