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***Trichomonas vaginalis* and *Chlamydia trachomatis* co-infections**

Trichomonas vaginalis (TV) is a common sexually transmitted protozoal infection associated with adverse health outcomes such as preterm birth and symptomatic vaginitis. TV has infected 3.7 million individuals in the United States with new infections expected to increase globally. While wet mount is the least sensitive test for TV, it is still the most common testing method used, despite other methods, including molecular assays being more effective. *Chlamydia trachomatis* (CT) is a sexually transmitted disease (STI) with a prevalence of more than 645 cases per 100,000 females in 2015. CT can cause infertility, pelvic inflammatory disease (PID), pregnancy complications, and increased risk of other STIs. Unlike TV, CT is tested through nucleic acid amplification test (NAAT), DNA probe tests, enzyme linked immunosorbent assay (ELISA), and direct fluorescent antibody test (DFA). By understanding the co-infection rate between TV and CT, better diagnostic protocols can be used for TV diagnosis based on other diagnosis of other common STIs. Therefore, in this study, we investigated the co-infection rates of CT and TV and collected CT positive patient samples from our clinics. We also collected their de-identified demographic information and performed NAAT based molecular test (Aptima TV assay) using Panther Platform (Hologic Inc. Marlborough, MA) on these patient samples. We determined incidence rate for the overall population and in various demographic sub-groups. Our results indicate an overall CT/TV co-infection rate of around 22%. The highest co-infection rate was amongst black women in the 18 to 24-year age group. Overall, the co-infection rate in the white population was one-third of the rate in the black population. Because of the high co-infection rates in black women, specifically in the 18-24 age group, interventions are necessary in this demographic group. Sexual education is critical in preventing future high STI rates. Educating schoolchildren would be ideal, but due to stigma surrounding STIs and sex education, this may not be very effective. Therefore, other methods such as online videos, informational websites, interactive games, social media, and smart phone applications must be explored.

Biography

Anil Kaul was graduated from Madras Medical College in Medicine, King Georges' Medical College in Dentistry and in Public Health from University of Minnesota. He currently serves as the Director of High-Complexity Clinical Laboratories and a Faculty at Oklahoma State University-Center for Health Sciences. He has been awarded 6 patents and has published more than 50 scientific papers. He has served as Senior Health Advisor to the US Department of State and received "Expeditionary Service Award". In 2014, he also received "Lifetime Achievement Award" at Global Health Summit and in 2008 he was named as Sony's "Scientist of the Year Award".

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