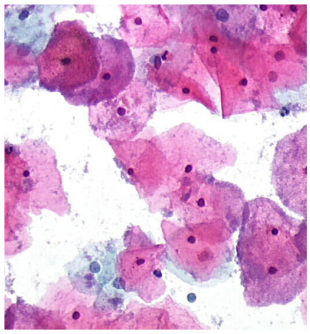

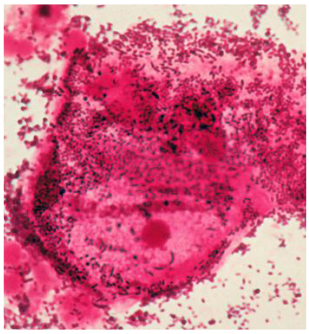

Biomarkers for diagnosing bacterial vaginosis

UCT researchers have developed a method that will form the basis for point of care test for diagnosing symptomatic and asymptomatic sexually transmitted infections (STIs) and bacterial vaginosis (BV). STIs and BV cause inflammation in the female genital tract increasing their risk of contracting HIV. In resource-limited settings BV and STIs are managed according to signs and symptoms since this is easily implementable, relatively inexpensive and patients are given immediate treatment.

A recent study done by researchers at UCT have found that STIs and BV are often present without producing or showing any symptoms (asymptomatic), and women who had asymptomatic infections had the same level of inflammation as women with symptomatic infections. Many women may thus not be aware that they have an infection and hence do not seek healthcare or treatment putting them at increased risk of HIV infections and reproductive complications.

Benefits

- Detects asymptomatic bacterial vaginosis and/or sexually transmitted infections
- Provides a low-cost, point of care screening suitable for public health services or home testing

Market

- A low cost point of care device for low to mid income countries where syndromic management is presently applied. This can be sold to government, family planning clinics, and individuals.
- A higher value detection device with a calorimetric, smart-phone based device directed at measuring cytokine control bands will be appropriate for high income countries and can be promoted as a 'self-check' sexual health status home kit, similar to pregnancy tests. The idea is that it will not be marketed as a diagnostic, but rather as an informed lifestyle choice, where a positive result is followed up with an accurate diagnosis and visit to the doctor.

Technical Description

The UCT team has identified a number of small molecule proteins of the general class of cytokines that when measured in samples collected from the inside of the vagina are accurate predictors of the presence of BV. Interleukin (IL)-1ß, interleukin (IL)-1α, interferon-γ induced protein (IP)-10, TNF-α, TNF-ß, MDC, IL-7, IFN-γ and GRO have all been found to have predictive potential and any combinations of these cytokines may serve as useful biomarkers to identify women with BV.

Keywords:
MRI, patient tracking, MRI orientation, image correction

Intellectual Property Rights:

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Technology Readiness Level:
4 - Preclinical

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