Incidence of *Trichomonas vaginalis* among Pregnant Women in Obari, Libya

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**Abstract:**
A total of 489 pregnant women attended gynecology and obstetric Department, Obari Hospital (during the period of middle of November 2007 to end of January 2008) for routine clinical examination. Among 489, 51 (10.42 %) were clinically diagnosed as having vaginitis with vaginal discharge and their vaginal swabs were screened for *Trichomonas vaginalis* using direct wet-mount microscopy. Only nine samples (1.84 %) were found positive for *T. vaginalis*. All these patients complained vaginal discharge, burning, vulvar pruritis and showed a heavy infection of *T. vaginalis* (3 to 4 parasites per 40 X field).

**Introduction:**
*Trichomonas vaginalis* an anaerobic parasitic flagellated protozoa is the causative agent of trichomoniasis and is the most common pathogenic protozoan infection of human world wide.¹ WHO estimated that 180 million infections are acquired annually world-wide.² Trichomoniasis is characterized with a foamy yellowish or creamy odorous discharge, itching and burning of vulva and can cause superficial necrotic ulcers in the mucosa.³ *T. vaginalis* is also reported among patients suffering from impotence and infertility but association of this parasitic infection and these disorders are not known.⁴ Urethral involvement occurs in a large number of cases and is characterized by dysuria and frequent urination. Complications of trichomoniasis include preterm delivery, low birth weight and increased mortality as well as predisposing to HIV infection, and cervical intraepithelial cancers.⁵ ⁶ ⁷

*Predisposition to our knowledge, only one study has documented on *T. vaginalis* in Libyan Arab Jamahiriya in Benghazi City.⁸ Moreover, infections are observed in Sebha (unpublished data).

In the present study, we report the results of a prospective study of vaginal swabs from pregnant women for *T. vaginalis* using direct wet-mount microscopy.

**Patients and Methods:**
The study was carried out among 51 pregnant women, who presented with vaginitis and vaginal discharge in the Laboratory, Obari Hospital, from middle of November 2007 to the end of January 2008. All the patients were Libyans, between 21 to 47 years of age, residing in Obari and near- by villages.

Fresh vaginal discharges were collected from consenting women. Soon after vaginal swabbing, specimens were smeared on glass slides; a drop of normal saline was added and covered with the cover slip. These preparations were examined under low power (10X) and a high power (40X) of microscope to detect *T. vaginalis* by its jerky movement with undulating membrane.

**Results:**
Out of 489 pregnant women, 51 (10.42%) showed vaginitis with vaginal discharge. Of these, 9(1.84%) were found positive for *T. vaginalis*. Out of 9 vaginal swab specimens, 7 (77.77%) were found positive for *Candida monilia*. The mean age was 31±10 years All the patients infected with *T. vaginalis* complained of vaginal discharge, burning and vulvar itching. Clinical symptoms correlated with *T. vaginalis* abundance (3 to 4 cells per 40 X field) in the study.

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**Discussion:**

*Trichomonas vaginalis* is appreciated an important public health world-wide sexually transmitted. Therefore, studies are required to understand the epidemiology, diagnosis, treatment and control programme of *T. vaginalis* to minimize the potential health risk for communities in Libya. Moreover, a very little information is available about trichomoniasis in Libyan Arab Jamahiriya.

This is the first study of *T. vaginalis* infection in Obari region. Infection rate (1.84%) was comparable to a report in Benghazi city (1.2%) among women with vaginal discharge.

Correlation was found between clinical symptoms and presence of high number of *T. vaginalis*. Moreover, Kassem and Majoud reported that the pregnant women infected with *T. vaginalis* suffered from vaginal discharge (93.10%), burning (81.48%), dysuria (21.43%) and strawberry appearance of vagina (75.86%) in Benghazi city.

Diagnosis of *T. vaginalis* must be made when dealing with patients showing clinical signs and symptoms for public health aspects of trichomoniasis in Libya because there is no active surveillance and control programme on national or regional levels for this disease.

**References**