

**Letter to editor****Complications of trichomoniasis on the pregnant women****Sima Rasti, PhD<sup>1\*</sup>, Mitra Behrashi, MD<sup>2</sup>, Gholamabbas Mousavi, MSc<sup>3</sup>, Rezvan Moniri, PhD<sup>4</sup>**<sup>1</sup>Department of Laboratory Medicine, Kashan University of Medical Sciences, Kashan, Iran<sup>2</sup>Department of Obstetrics and Gynecology, Kashan University of Medical Sciences, Kashan, Iran<sup>3</sup>Department of Health and Statistic, Kashan University of Medical Sciences, Kashan, Iran<sup>4</sup>Department of Microbiology and Immunology, Kashan University of Medical Sciences, Kashan, Iran**How to cite this article:**

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*Trichomonas vaginalis* infection during pregnancy can cross into the amniotic fluid and result in preterm labor. Preterm birth is associated with poor infant health and early deaths, admission of the newborn to neonatal intensive care in the first few weeks of life, prolonged hospital stay and long-term neurologic disability including cerebral palsy [1]. Pregnant women with *T. vaginalis* are at increased risk for premature rupture of membranes (PROM), preterm delivery and low birth weight infants (LBW) [2-4]. Trichomoniasis has been shown to be associated with increased risk of preterm birth; however, treatment has not consistently improved pregnancy outcome [5]. Our objectives were to determine the prevalence of *T. vaginalis* in referral pregnant women in Shabih-Khani Maternity and Gynecology hospital of Kashan, Iran and the effect of trichomoniasis on the outcome of pregnancy including PROM, preterm delivery and LBW.

In this follow-up study, we enrolled 450 pregnant women with gestational age of 16-36 weeks from Shabih-Khani Maternity and Gynecology hospital of Kashan, Iran. *T. vaginalis* was determined on the basis of vaginal pH, saline wet mount, and culturing in modified Diamonds medium [Trypton Soya Broth, (Oxoid, England); Yeast extract, Maltose, L(+)Ascorbic acid, (Merck, Germany)]. The principal outcomes were delivery before 37 weeks of gestation, PROM and LBW. A comprehensive pregnancy record was recorded in a secure database including demographic data, antenatal visits, pregnancy complications and postnatal data. Of 450 pregnant women, 150(33.3%) had preterm labor and 300(66.7%) term delivery.

Two (1.3%) patients with preterm labor were positive for *T. vaginalis* but in term labor *T. vaginalis* was not found. Two pregnant women (0.5%) were positive for *T. vaginalis* (CI: 0.2-0.8). Two pregnant women (2.9 %) with PROM were positive

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for *T. vaginalis* (Table 1). Two infected pregnant women had LBW infants. The two infected pregnant women were illiterate, house wives, one of them was 20 and the other was 32 years old and their symptoms were vaginitis, cervicitis, vulvar pruritus, dyspareunia, and one of them showed strawberry cervix, burning and dysuria.

**Table 1:** Distribution of pregnant women according to trichomoniasis and premature rupture of membrane

Premature rupture of membrane	<i>T. vaginalis</i>		Total (%)
	Positive (%)	Negative (%)	
Present	2 (2.9)	67 (97.1)	69 (100)
Intact	0 (0)	381 (100)	381 (100)
Total	2 (0.5)	448 (99.5)	450 (100)

The prevalence of the *T. vaginalis* was low in Kashan's pregnant women (0.5%) because of Iranian cultural attitudes [5]. Prevalence of trichomoniasis has been reported 5.5% in pregnant women in Iran [6] and from 7.2% to 12.4% in the world [7,8]. According to the results of the largest prospective study in the USA, *T. vaginalis* was significantly associated with low birth weight and preterm delivery [5]. Azargoon and Darvishzadeh [6] showed that there was no significant correlation between *T. vaginalis* with preterm labor birth.

The results of our study showed that all of infected pregnant women with *T. vaginalis* had PROM and preterm delivery and LBW infants, but analytical studies are recommended in societies with high prevalence of disease. Due to the role of *T. vaginalis* in facilitating HIV transmission, proper diagnosis and appropriate treatment of asymptomatic trichomoniasis is necessary to control and prevent complications of the disease [9,10].

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