



Distribution and Clinical Characteristics of *Trichomonas vaginalis* Infection Among Women with and Without Type 2 Diabetes Mellitus in Basrah – Iraq

Zainab Jameel Abdul Majeed ^{1*}; Athraa A.A. Al-Hilfi ² ; Sanaa Jameel Thamer³

Department of Biology, College of Science, University of Basrah, Basrah, Iraq

Correspondence Email : zainab.jameel@uobasrah.edu.iq

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Abstract:

Trichomonas vaginalis is the most prevalent non-viral sexually transmitted infection globally; however, its association with type 2 diabetes mellitus (T2DM) in Iraq remains insufficiently characterized. This study aimed to investigate the prevalence and clinical characteristics of laboratory-confirmed *T. vaginalis* infection among women in Basrah, Iraq, and assess its association with T2DM, demographic variables, and serum betatrophin (ANGPTL8) levels. A cross-sectional study was conducted on 175 symptomatic women. For biochemical analysis, 128 participants were equally distributed into four groups. Diagnosis was confirmed using wet mount, Giemsa and Trichrome staining, rapid antigen testing, and TYI-S-33 culture, while serum betatrophin was measured via ELISA. Statistical analysis employed Chi-square and two-way ANOVA. Results identified 93 confirmed cases (61.3% in T2DM patients and 38.7% in non-diabetics). No statistically significant association was found between T2DM and *T. vaginalis* infection ($p = 0.835$). The Al-Fayhaa Teaching Hospital area recorded the highest proportion of cases (45.2%). Overweight and obese women ($BMI \geq 25 \text{ kg/m}^2$) accounted for over 82% of infections, and 89.2% of cases were married. Vaginal discharge was the predominant symptom (92.5%), whereas lower abdominal pain was reported in only 11.8%. Serum betatrophin levels showed a significant age-group interaction ($p \leq 0.05$).

The study concludes that T2DM is not an independent determinant of *T. vaginalis* susceptibility in this population. Vaginal discharge remains the primary clinical marker of trichomoniasis, while betatrophin appears regulated by age-related metabolic factors rather than the parasitic infection itself.

Key words: *Trichomonas vaginalis*, Type 2 Diabetes Mellitus, Trichomoniasis, Betatrophin

