

## **ABSTRACT**

**Introduction:** Avian trichomoniasis is a serious infection caused by a flagellated protozoan, *Trichomonas gallinae* which parasitizes a variety of avian orders especially in domestic pigeons (*Columba livia domestica*, Order Columbiformes). Different methods have been reported for the identification of *T. gallinae* in pigeons. **Materials and Methods:** Diagnosis of *T. gallinae* was accomplished by microscopic examination of oropharyngeal swabs of pigeons (n=120, males=78, females=42) using wet mount, and by microscopic examination of cultures taken from InPouch TF culture kits, modified Diamond's medium and modified thioglycolate medium during various incubation time periods after post inoculation (PI). **Results:** Total 38% pigeons were found positive for *T. gallinae* by wet mount microscopy, 68.3% with InPouch TF kit, 55% were with modified Diamond's medium and 48% were found to be positive with thioglycolate. Significant differences (CI-99%, p=.014) between incubation time of for InPouch TF kit (CI-99%, p=.001), modified Diamond's medium (CI-99%, p=.000< $\alpha$ ) and for modified thioglycolate medium (CI-99%, p=.000). No significant sex-related difference in diagnosis of *T. gallinae* was found for wet mount microscopy (p=.987), InPouch TF kit (p=.839), modified Diamond's medium (p=.765) and modified thioglycolate medium (p=.645). **Conclusion:** InPouch TF as most sensitive method as compared to other techniques is perfect technique for the diagnosis of *T. gallinae* infections. However modified thioglycolate medium was found to be practically efficient as Diamond's medium in recovering the parasite from specimens and may provide a readily available, low-cost substitute for the Diamond's medium.