Letter to the Editor

Toxoplasmosis: A Hidden Threat to Women's Reproductive Health

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Dear Editor,

According to reported cases of a critical health issue through the world and Iraq, toxoplasmosis has been seen as a hidden threat to women's reproductive health. This infection is increasing in women in Iraq (1); several studies have recorded a continuous increase in the seroprevalence rate of toxoplasmosis between 2019 and 2023 in women in Iraq, such as by Raza et al. (2), Jawad et al. (3), Barzinij (4), Abdul Ameer Jaber and Noori (5), and Murad and Eassa (6). The rate of seroprevalence among women is serious. It impacts the health of the reproductive system of females, and it needs action from the infectious diseases control and prevention directorate. Toxoplasmosis is a prevalent infectious disease globally, caused by *Toxoplasma gondii,* affecting nearly two million people worldwide, primarily in humid and warm regions. It is asymptomatic in healthy people and highly significant in pregnant women, and it affects the female reproductive system, which leads to abortion, infertility, congenital abnormalities, and stillbirth (7), neurological disorders, and psychological conditions such as Alzheimer's (8). There are several ways for transmission of toxoplasmosis as seen in Fig. 1. Because this disease is usually asymptomatic, screening tests play an important role in identifying potential infections during pregnancy. Serological testing for anti-toxoplasma IgM and IgG antibodies can be used to diagnose severe infection in pregnant women (9).

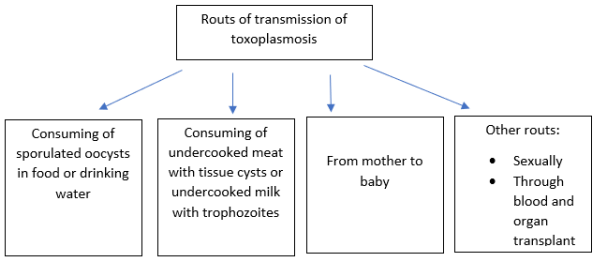

Fig. 1: Routs of transmission in human

Pyrimethamine and sulfadiazine are the best treatments for toxoplasmosis. However, drug resistance is a worrying trend that could exacerbate the disease and result in treatment failure. Identifying high-risk groups, improving screening methods, and creating safer, more efficient therapies for neonatal and maternal toxoplasmosis should be the top priorities of future research. Many vaccination approaches, including nucleic acids, protein subunits, attenuated vaccines, and nanoparticles, have demonstrated encouraging outcomes in rodents during the decades-long global quest to create a vaccine against toxoplasmosis. (10,11,12).

A good strategy for prevention and management is required, including

- Personal hygiene
- Improve water sanitation and hygiene infrastructure.
- Should be taken care of during manipulation of the pets' animals (cats) and cleaning of their litter
- Periodic screening for toxoplasmosis,
- Improved health services for early diagnosis and treatment of diseases.
- Finally, open the eyes of our community about this thread.

These urgent actions will help minimize the burden of toxoplasmosis and its effects on women's reproductive health, thus saving numerous lives.

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