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Letter to the Editor

A Hidden Culprit: The Role of Blastocystis hominis in Exacerbating Iron Deficiency among Expectant Mothers

***Haewon Byeon**

Worker's Care & Digital Health Lab, Korea University of Technology and Education (KOREA TECH), Cheonan 31253, South Korea

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*Correspondence Email:
bhwpuma@naver.com

Letter to the Editor

I am writing to highlight the findings of a recent study (1), which investigated the role of *Blastocystis hominis* infection as a potential risk factor for iron deficiency anemia (IDA) in pregnant women. This cross-sectional study included 208 pregnant women attending prenatal check-ups at Imam Reza and Ghaem Hospitals in Mashhad, Iran (1). The participants were divided into two groups: 98 women diagnosed with IDA and 110 women without IDA. The study found a significantly higher prevalence of *B. hominis* infection in the IDA group (38.8%) compared to the control group (10.9%).

The implications of these findings are profound. Iron deficiency anemia is a common nutritional deficiency that adversely affects both maternal and fetal health outcomes (2). Berenji et al. (1) suggests that parasitic infections, particularly *B. hominis*, may exacerbate this condition by impairing iron absorption or increasing iron loss. This aligns with previous studies (3, 4) indicating a link between gastrointestinal parasites and nutritional deficiencies.

From a public health perspective, these results emphasize the need for routine screening of parasitic infections in pregnant women, especially in regions where such infections are prevalent. This could lead to improved management of IDA through combined approaches of iron supplementation and antiparasitic treatments. Furthermore, addressing *B. hominis* infections could potentially enhance the efficacy of iron supplementation programs, thereby improving pregnancy outcomes (5).

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Socioeconomic factors, such as lower educational attainment, are associated with higher rates of *B. hominis* infection. This highlights the importance of targeted public health interventions that address both educational and health literacy components to reduce the burden of parasitic infections and associated nutritional deficiencies.

The reviewed study acknowledges certain limitations, including its cross-sectional design, which does not allow for establishing a causal relationship between *B. hominis* infection and IDA. Future longitudinal studies are recommended to further explore this association and uncover the underlying mechanisms. Additionally, the relatively small sample size and geographic concentration may restrict the generalizability of the findings.

In conclusion, this study provides evidence supporting the consideration of *Blastocystis* infection in the differential diagnosis of iron deficiency anemia among pregnant women. Further research in diverse populations to validate these findings and inform effective clinical and public health strategies are advised aiming at reducing the incidence of IDA.

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Conflict of Interest

The authors declare that there is no conflict of interests.

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