EuroSciCon

12th Edition of International Conference on

Infectious Diseases

April 22-23, 2019
Rome, Italy

Ishag Adam, J Infec Dis Treat 2019, Volume 5
DOI: 10.21767/2472-1093-C2-011

Association between placental sub microscopic *Plasmodium falciparum* malaria, *Helicobacter pylori* and low birth weight

Ishag Adam

University of Khartoum, Sudan

Statement of the Problem: Both malaria and *Helicobacter pylori* infection can lead to maternal and perinatal adverse effects. There are few published data on interaction between malaria and *H. pylori* and their association with low birth weight (LBW). The purpose of this study was to investigate the association between malaria, *H. pylori* and LBW and to assess if there is any interaction between malaria and *H. pylori.*

Methodology & Theoretical Orientation: A case control study was conducted at Medani Hospital, Sudan. The cases were women who delivered low birth weight (<2,500 g) and women who delivered normal weight (≥ 2,500 g) were the controls. Obstetric history was gathered using questionnaires. peripheral, placenta and umbilical cord malaria was investigated using blood film, placental histology and PCR. *H. pylori* IgG antibody was analysed using ELISA.

Findings: There were no significant differences between the two groups (case or control, 87 in each arm) in their age, parity and body mass index. Significantly higher numbers of the cases than the controls had malaria infections (placental malaria infections on histology/ submicroscopic malaria infection); 46 (53.0%) vs., 24 (27.6%), P = 0.001. The rates of positivity for specific IgG formed against *H. pylori* in the maternal were 75.9% (66/87) vs 55.2% (48/87), P = 0.006 and 75.9% (66/87) vs., 34(39.1%), P < 0.001 in the cord in the cases (LBW) and in the controls, respectively. In multivariate analysis, submicroscopic malaria infections (OR=3.7, 95% CI=1.4–6.6; P= 0.007) and all *P. falciparum* infections (histological or submicroscopic) (OR=3.1, 95% CI=1.5–6.4; P = 0.002), *H. pylori* IgG seropositive maternal (OR=3.2, 95% CI=1.4–7.2; P = 0.003), and cord (OR=2.4, 95% CI=2.1–10.2; P < 0.001), were significantly associated with LBW. In linear regression submicroscopic malaria infections (Coefficient = – 0.257 g; P= 0.019) and all *P. falciparum* infections (histological or submicroscopic) (Coefficient= – 0.208g; P= 0.017), *H. pylori* IgG seropositivity in the maternal (Coefficient= – 0.384 g; P < 0.001), and in the cord sera (Coefficient= – 0.342 g; P < 0.001), were significantly associated with birth weight.

Conclusion & Significance: In this study both submicroscopic malaria and *H. pylori* were associated with LBW. Further research is needed to explore the interaction between malaria and *H. pylori* .

Recent Publication

1. Adam I, Salih M M, Mohmmed A A, Rayis D A and Elbashir M I (2017) Pregnant women carrying female fetuses are at higher risk of placental malaria infection. PLoS one 12(7): e0182394.
2. Omer S A, Idress H E, Adam I, Abdelrahim M, Noureldein A N, Abdelrazig A M, Elhassan M O and Sulaiman S M (2017) Placental malaria and its effect on pregnancy outcomes in Sudanese women from Blue Nile State. Malaria Journal 16(1): 374.

3. Nourollahpour Shiadeh M, Mohammad Riahi S, Adam I, Saber V, Behboodi Moghadam Z, Armon B, Spotin A, Nazari Kangavari H and Rostami A (2017) *Helicobacter pylori* infection and risk of preeclampsia: a systematic review and meta-analysis. Journal of Maternal Fetal and Neonatal Medicine 32(2): 324-331.

4. Alshareef S A, Eltom A M, Nasr A M, Hamdan H Z and Adam I (2017) Rubella, herpes simplex virus type 2 and preeclampsia. Virology Journal 14(1):142.

5. A Ali E, M Abdalla T and Adam I (2017) Platelet distribution width, mean platelet volume and haematological parameters in patients with uncomplicated *Plasmodium falciparum* and *P. vivax* malaria. F1000Reseach 6: 865.

6. Elmugabil A, Rayis D A, Abdelmageed R E, Adam I and Gasim G I (2017) High level of hemoglobin, white blood cells and obesity among Sudanese women in early pregnancy: a cross-sectional study. Future Science OA 3(2): FSO182.

Biography

Ishag Adam a holder of MD in Obstetrics and Gynecology and PhD in Public Health, Division of Epidemiology and Biostatistics. Prof Ishag is a full Professor in 2009 at Faculty of medicine, University of Khartoum Sudan. Dr. Ishag has been author or co-author on over 300 articles and 6 chapters that have appeared in peer-reviewed journals, and is a reviewer for such journals as lancet, international Journal of Gynecology and Obstetrics, Malaria Journal and Journal of Obstetrics and Gynecology. He is on the editorial Board of BMC pregnancy and Child Birth. Prof Ishag and his collaborators succeeded to move Praziquantel during pregnancy from unsafe zoon (X) to be safely used during pregnancy as per WHO guidelines. He spent most of his carrier investigating malaria, anemia, pre-eclampsia and well known in the safety of artemisinins during pregnancy in RCOG guidelines.

ishagadam@hotmail.com