

prevalence of *P. falciparum* resistance to SP in the area, with implications for the control of malaria in this vulnerable group.

PA-002 **EVIDENCE OF *PLASMODIUM FALCIPARUM* RESISTANCE TO SULPHADOXINE-PYRIMETHAMINE (SP) IN PREGNANT WOMEN ALONG THE SLOPE OF MOUNT CAMEROON**

Lenshina Agbor, Tobias Apinjoh. *University of Buea, Cameroon*

10.1136/bmjgh-2016-000260.41

Background Malaria in pregnancy (MiP) has debilitating effects for both mother and neonate, with intermittent preventive treatment in pregnancy (IPTp) central to successful malaria control and management in this vulnerable group. However, the effectiveness of IPTp with sulphadoxinepy-rimethamine (SP) is threatened by the emergence of drug resistant *Plasmodium falciparum* parasites vastly documented in some settings but not in south-western Cameroon. This study sought to ascertain the level of resistance of natural parasite populations to SP in this area.

Methods A total of 358 parturients were enrolled through a cross-sectional survey from May to October 2015. Malaria parasitaemia was determined by light microscopy using Giemsa-stained thick and thin smears of the peripheral blood, while DNA was extracted from dried blood spots of *P. falciparum*-positive samples by the Chelex-PBS method. SNPs in *pfdhps* and *pfdhfr* were then genotyped by nested polymerase chain reaction followed by allele-specific restriction analysis (ASRA).

Results A total of 47 women (13.1%) had MiP with a geometric mean parasitaemia density of 1064 parasites/ μ l of blood. The weight ($p=0.038$), gestational age ($p=0.001$), IPTp-SP usage ($p<0.001$) and IPTp-SP dosage ($p=0.001$) of parturients were identified as risk factors of malaria parasitaemia. Overall, 76.5% (274/358) and 60.3% (216/358) of the women took IPTp-SP and two or more SP doses, respectively. Participants who had taken IPTp-SP ($p=0.009$) and two or more SP doses ($p<0.001$) had lower parasite loads compared to non-IPTp-SP users and those who had taken one dose or less, respectively. The Pfdhps K540E substitution was absent in the area, the prevalence of Pfdhfr S108N and Pfdhps A581G was 97.6% and 51.1%, respectively.

Conclusions These results show the value of IPTp-SP usage and dosage in malaria parasitaemia control, in spite of the high