Grading Schemes for Placental Malaria

To the Editor—We have read with great interest the article by Muehlenbachs et al [1], in which the authors present a histological grading scheme for placental malaria. The authors emphasize that the basic aim of the proposal is to provide a tool to improve the comparison and standardization between the studies conducted in different geographical areas. However, it is surprising that the presence of Plasmodium parasites, easily recognizable in the histological samples of the placenta [2], has not been included in the grading scheme. Parasite identification is the most commonly evaluated histological finding in previous studies, and many reports from different groups have shown the close relationship between placental parasitemias and poor fetal outcomes [2, 3].

On the other hand, Muehlenbachs et al [1] claim that this is a novel grading scheme based on the different scoring of 2 histological findings: intervillous inflammation and pigment deposition. Nevertheless, we would like to stress that we reported a similar semiquantitative method to evaluate both placental inflammation and malarial pigment deposition in 2000 [4] and described the massive intervillositis associated with malaria infection of the placenta [5] in a study focused on this particular subset of placentas with malaria infection, stressing its close association with low birth weight. The grading scheme for intervillos inflammation proposed in our study was basically identical to the score proposed by Muehlenbachs et al [1] and was shown to strongly correlate with increased risk of low birth weight both in univariate and multivariate analysis [3]. We also proposed a semiquantitative method to evaluate malarial pigment [4], which correlated with birth weight and prematurity. Interestingly, Muehlenbachs et al [1] include a few refinements in the scoring system for malarial pigment: it excludes pigment in erythrocytes and monocytes and categorizes the pigment depending on the percentage of high-power fields (×60) that show pigment. Although it is probably worth stressing that pigment in maternal erythrocytes should not be evaluated, as it represents the pigment present within the mature trophozoites and schizonts that predominate in the placenta, we would like to emphasize that the exclusion of pigment in intervillos erythrocytes represents the exclusion of a relevant finding with significant implications on birth weight, as shown by Rogerson et al [2].

References