SAFETY AND EFFICACY OF SAR97276A FOR TREATING MALARIA: TWO OPEN-LABEL MULTICENTER PHASE II CLINICAL STUDIES IN AFRICAN CHILDREN AND ADULTS

Jana Held,1,2,3 Christian Supan,1,2 Carmen L. Ospina Salazar,1,2 Halidou Tinto,4 Léa Nadège Bonkian,4 Ali Sié,6 Salim Abdulla,7 Cathy Cantalloube,8 Elhadj Djeriou,8 Marielle Bouyou-Akotet,9 Bernhards Ogutu,10 Benjamin Mordmüller,1,2,3 Mohamadou Siribie,11 Sodiomon B. Sirima,11,12 Peter G. Kremsner1,2,3. 1Institut für Tropenmedizin, Universitätsklinikum Tübingen, Tübingen, Germany; 2Centre de Recherches Médicales de Lambaréné, Lambaréné, Gabon; 3German Centre for Infection Research, partner site Tübingen, Germany; 4Centre Muraz – IRSS, Bobo-Dioulasso, Burkina Faso; 5Centre de Recherche Entomologique de Cotonou, Benin; 6Centre de Recherche en Santé de Nouna, Burkina Faso; 7Ifakara Health Research Center, Bagamoyo, Tanzania; 8Sanofi Research and Development, France; 9Département de Parasitologie, Mycologie, Médecine Tropicale, Université des Sciences de la Santé, Libreville, Gabon; 10KEMRI Walter Reed Project, Kisumu, Kenya; 11Groupe de Recherche Action en Santé, Burkina Faso; 12Centre National de Recherche et de Formation sur le Paludisme, Burkina Faso

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Background SAR97276A, is a choline analogue inhibiting the phospholipid biosynthesis of Plasmodium falciparum. Treatment options for severe malaria are limited and SAR97276A represents a drug candidate for this indication.

Methods This is a report on two consecutive trials evaluating safety and efficacy of parenterally administered SAR97276A for the treatment of malaria.

The first study was a phase 2, multicenter, open-label study at six African hospitals (NCT00739206). At first adults with uncomplicated malaria were included receiving a single dose SAR97296A (IM: 0.18 mg/kg or IV: 0.14 mg/kg) followed by repeated dosing with daily administration of the IM dose for three days in case of lack of efficacy of the single-dose regimen before age de-escalation.

The second study was a phase 2, multicenter, randomized, controlled open label study at five African hospitals assessing safety and efficacy of a higher dose of SAR97276A IM once (0.5 mg/kg) or twice (0.25 mg/kg) daily for 3 days compared to artemether-lumefantrine in children 12–17 years before age de-escalation to younger children (NCT01445938).

Results In the first study 113 patients received SAR97276A: 30 adults single-dose IV, 34 adults single-dose IM, 30 adults 3-day dose IM and 19 children 3-day dose IM. SAR97276A given as a single-dose to adult patients showed insufficient efficacy by IM route (20 cured of 34; and IV route (23/30 cured). The 3-day treatment showed a sufficient level of efficacy when given IM to adults (27/30 cured) but not when given to children 7–17 years (13/19 cured).

In the second study 20 patients were recruited and randomly assigned (2:2:1 ratio) to receive once-daily SAR97276A, twice-daily SAR97276A or artemether-lumefantrine. All patients receiving SAR97276A once-daily and 5/8 patients receiving SAR97276A twice-daily required rescue therapy. All patients in the control group were cured.

Conclusion Both studies were stopped due to lack of efficacy. SAR97276A given as monotherapy up to three days is not efficaciously curing malaria.

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