Abstract

Two bisbenzylisoquinoline and one hasubanane alkaloids: (−)-pseudocurine (**1**), (−)-pseudoisocurine (**2**) and (−)-10-oxoaknadinine (**3**), were isolated from leaf extract of *Stephania abyssinica*, a plant used in traditional medicine in South Nyanza region of Kenya. They were characterized using 1D (^{1}H, ^{13}C and DEPT) and 2D (COSY, NOESY, HMQC and HMBC) NMR techniques. (−)-Pseudocurine (**1**) and (−)-pseudoisocurine (**2**) exhibited strong to moderate anti-plasmodial activity while (−)-10-oxoaknadinine (**3**) showed moderate to mild activity.

Graphical abstract

From the leaves of *Stephania abyssinica*, three alkaloids were isolated: (−)-pseudocurine (**1**), (−)-pseudoisocurine (**2**) and (−)-10-oxoaknadinine (**3**). (−)-Pseudocurine and (-)-pseudoisocurine showed strong anti-plasmodial activity against both chloroquine-susceptible D6 and resistant strains of *Plasmodium falciparum* (IC_{50} 0.29 ± 0.00 and 0.31 ± 0.01 μg/ml, respectively) while (−)-pseudoisocurine exhibited moderate and mild activity (0.75 ± 0.11 and 1.65 ± 0.03 μg/ml).