ABSTRACT

The emerging resistance of *Plasmodium falciparum* to chloroquine and sulfadoxine pyrimethamine drugs in Kenya has necessitated the need to look for new more effective antimalarial drugs. This study investigated the *in vitro* antiplasmodial activities of methanolic and aqueous crude extracts of *Carissa edulis, Azadirachta indica, Cassia siamea* and *Harrisonia abyssinica* on *Plasmodium falciparum* strains. Drug assays were conducted using SYBR Green 1 dye. Two Reference *Plasmodium falciparum* strains, 3D7 and W2 were assayed against two anti-malarial conventional drugs and crude extracts of *Carissa edulis, Azadirachta indica, Cassia siamea* and *Harrisonia abyssinica* to generate 50% inhibitory concentrations of chloroquine, mefloquine, methanolic and aqueous extracts. These extracts have potential for antimalarial activities that can be used to develop pure compounds for prospective antimalarial molecules for therapeutic uses. Methanolic and aqueous extracts of *Carissa edulis, Azadirachta indica, Cassia siamea* and *Harrisonia abyssinica* demonstrated *in vitro* antiplasmodial effect on the two *Plasmodium falciparum* strains. These findings support the hypothesis that these plants have antiplasmodial activities against *Plasmodium falciparum* strains through the active phytochemicals found in them. The extracts from these plants therefore have the potential to be harnessed for anti-malarial drug development.