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Comparative study of antimalarial activity of hydro-alcoholic extract of *Crocus sativus* (stigma) with chloroquine

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Background and Aims: Anti-malarial drug resistance to current therapies already led researchers to find more effective drugs. Therefore, considering the importance of indigenous herbal drugs that could have an acceptable impact on the malaria parasites, the effect of saffron extract and fractions on the plasmodium berghei in mice were studied and compared.
Methods: For this purpose, 70 male mice were divided into 14 groups of 5 which were infected with Plasmodium. Using Pitter method, two hours after the infecting, treatment was started orally. Except for the control, other groups were treated with different concentrations of saffron total extract, aqueous and ethyl acetate fractions as well as with chloroquine and flavonoid quercetin. After four days, the percent of parasitemia was monitored and using sigmaplot program the ED50 was determined.
Results: The results showed different decreased parasitemia levels in different concentrations of saffron extract and fractions.
Conclusions: Although all used concentrations significantly decreased the number of parasites in infected mice, studies show that the effect of saffron extract and fractions on the parasite is moderate.

Keywords: *Plasmodium berghei*; *Crocus sativus* L; Antimalarial; Chloroquine