International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.13 No.01, pp 69-74, 2020

Protection of Renal Function ByHyperbaric OxygenDuring Plasmodium berghei ANKA Infection

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Abstract : Background: Malaria cases have consistently increased and the number of deaths remains largely unchanged.Malaria associated renal injury has a high level of morbidity and mortality. High level of blood urea nitrogen / BUN and plasma creatinine is one of the major factors associated with mortality in humans infected with malaria, indicating that impairment of renal function. HBO is widely used as an adjunctive therapy for many diseases, it is known that HBO hasan action as antiplasmodium, antiinflammation and antioxidant effects.
Objective: The aim of this study was to determine the effect of HBO on BUN and creatinine levels in rats infected with *P. berghei* ANKA.
Methods: This research was conducted experimentally post-test only control group on six groups of rats. The samples used were 24 male Rattus norvegicus wistar strain that have been infected by *Plasmodium berghei*ANKA and divided into 6 groups. Group 1 was given combination artesunate and 1, 5 ATA HBO, grup 2 was given combination artesunate and 3, 0 ATA HBO, group 3 was given 1, 5 ATA HBO, group 4 was given 3, 0 ATA HBO, group 5 was given artesunate and group 6 was given aquadest. HBO therapy is carried out for 10 days and the observation of the levels of BUN and creatinine in mice after treatment on tenth day.
Results: Descriptive analysis and statistical analysis (Kruskal wallis snd Mann whitney U posthoc) showed a significant difference ($p < \alpha = 0.05$) on mean levels of BUN and creatinine group receiving combination of artesunate and HBO 3,0 ATA compared to other groups.Hyperbaric oxygen has the effect of reducing the levels of BUN and creatinine in rats infected by P.berghei ANKA.
Keywords : HBO, *P.berghei* ANKA, malaria , BUN and Creatinine.

DOI= http://dx.doi.org/10.20902/IJCTR.2019.130108

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