



ChemTech

## International Journal of ChemTech Research

CODEN(USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555  
Vol.10 No.10, pp 311-315,2017

### Ex-vivo Evaluation of Cytotoxic potential of Proguanil

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**Abstract:**Background and Objectives: Proguanil is also known as chloroguanide is medication which is used to treat malaria. Its active metabolite cycloguanil is an inhibitor of DHFR (Dihydrofolate Reductase) for both mammals & parasite. The aim of this study was to elucidate the in vitro cytotoxic activity of Proguanil.

**Methodology:** The cytotoxic activity of Proguanil was performed with the help of Brineshrimp Model. In which we done the Hatching of the egg of Brineshrimp. In hatching we use the premature developed cell of brineshrimp. After we adding the solution of the drug with different concentration on same number cell of brineshrimp. With the help of haemolytic study, we also see the effect of proguanil on Human blood cells. Haemolytic study done by UV-Spectrophotometer.

**Result:** When drug administered on the cell of brineshrimp, number of brineshrimp was decreased as per concentration of drug increased. When performing haemolytic study the % Haemolysis was significantly increase as per concentration of drug increased.

**Conclusion:** The cytotoxic effect of proguanil is may be useful in cancer.

Keval R. Rathod *et al*/International Journal of ChemTech Research, 2017,10(10): 311-315.

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