ABSTRACT

PLASMA BLOOD OF PRIMAQUINE AND CHLOROQUINE IN MICE AFTER INTRAVENOUS ADMINISTRATION OF LIPOSOME

Nuril Fadilatul Nehru

Malaria is divided into two types, namely erythrocytic and hepatic malaria. Primaquine (PQ), which belongs to the 8-aminoquinoline group, is the only effective antimalarial drug in the hepatic phase, but this drug has the effect of hemolytic anemia in patients with glucose-6-Phosphate dehydrogenase (G6PDase) deficiency. Chloroquine also has potent activity against the asexual stage (erythrocytic stage), but has no activity against hypnozoites. The use of primaquine with chloroquine in therapy has been reported to increase the effectiveness of primaquine and can reduce the toxicity of primaquine. In this research, biodistribution tests were carried out in vivo on liposome primaquine and chloroquine liposome mice and combinations compared chloroquine. Liposomes and free drugs injected equivalent to doses of primaquine and chloroquine, which are 3.5 mg and 1.8 mg / kg BB mice. After 24 hours of drugs administration, the blood level of primaquine and chloroquine wiil be determination using HPLC. The result shored about 86,21% anf 72,92% injected dose of chloroquine were observe for liposome chloroquine and liposome combination of chloroquine and primaquine, while it is only 14,62% detected after free drugs administration. An the other hand , primaquine not be quantified because no specific read well before during the analysis. It can be that the chloroquine drug in the preparation of liposomes has proven effective compared to free drug, as evidence

condition liposome could improve systemic blood syrculation of chloroquine.

Keywords: Primaquine, chloroquine, liposomes, biodistribution, in vivo release studies.