Adams Sefinat Oyindamola

17/mhs02/001

300 Level

Chemotherapy of malarial parasite

Classify the antimalarial agents and state the mechanism of action of each class of drug listed.

1. Hypnozoiticidal and gametocytocidal

Drug: Primaquine

Mechanism of action: Primaquine interferes with the electron transport in the parasite during respiratory process.

2. Blood schizontocides

Drug: Chloroquine

Mechanism of action: Chloroquine accumulates in the acidic food vacuole of intraerytrocytic trophozoites and thereby prevents hemoglobin degradation.

Drug: Curcumin

Mechanism of action: Curcumin inhibits the activity of enzymes and lipid peroxides.

Drug: Lumefantrine

Mechanism of action: Lumefantrine is believed to inhibit nucleic and formation of beta – hematin by forming a complex with hemin.

3. Gametocytocidal

Drug: Artemisinin dihydroartemisinin

Mechanism of action: Involves the heme-mediated decomposition of the peroxide bridge to produce carbon – centered free radicals.

4. Gametocytodal

Drug: Artemether

Mechanism of action: It acts against erythrocytic stages of p. falciparum and inhibit nucleic acid and protein synthesis.