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Antimalarial Potential Crude Drugs- An Overview

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Abstract: ***Malaria is mainly caused by bite of the female Anophelous Mosquito. The parasite belongs to Plasmodium species. They are P. falciparum, P. vivax, P. ovale, P. malaria. The disease is caused to infants by breast feeding also. The organ transplantation or Blood transfusion can also causes malaria. So our review focused based on the antimalarial potential crude drugs for treatment. Allopathic medicine is having more side effect and cost also high. So in this review reach to poor circumstance people recover from malaria.***
Keywords: Malaria, P.vivax, P.malaria, crude drugs, Allopathic

Introduction:

Malaria is a life-threatening disease caused by parasites that are transmitted to people through the bites of infected female Anopheles mosquitoes. There are five parasite species that cause malaria in humans, and two of these species, Plasmodium falciparum and Plasmodium vivax, pose the greatest threat.

Causative Organism of Malaria:

Malaria is mainly caused by bite of the female Anophelous Mosquito. The parasite belongs to Plasmodium species. They are **P. falciparum, P. vivax, P. ovale, P. malaria.** The disease is caused to infants by breast feeding also. The organ transplantation or Blood transfusion can also causes malaria.

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Fig: *Anophelous Mosquito*

Signs and Symptoms:

Common symptoms:

- Running nose, cough and other signs of respiratory infection
- Diarrhoea/dysentery
- Burning micturition and/or lower abdominal pain
- Skin rash/infections
- Abscess
- Painful swelling of joints
- Ear discharge
- Lymphadenopathy

Severe Cases:

- Impaired consciousness/coma
- Repeated generalized convulsions
- Renal failure (Serum Creatinine >3 mg/dl)
- Jaundice (Serum Bilirubin >3 mg/dl)
- Severe anaemia (Hb <5 g/dl)
- Pulmonary oedema/acute respiratory distress syndrome
- Hypoglycaemia (Plasma Glucose <40 mg/dl)

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• Metabolic acidosis

• Circulatory collapse/shock (Systolic BP <80 mm Hg, <70 mm Hg in children)

• Abnormal bleeding and DIC

• Haemoglobinuria

• Hyperthermia (Temperature >104o F)

• Hyperparasitaemia (>5% parasitized RBCs in low endemic and >10% in hyperendemic areas

Diagnosis and Treatment:

Diagnosis:

1. Microscopy
2. Rapid Diagnostic Test

Treatment:

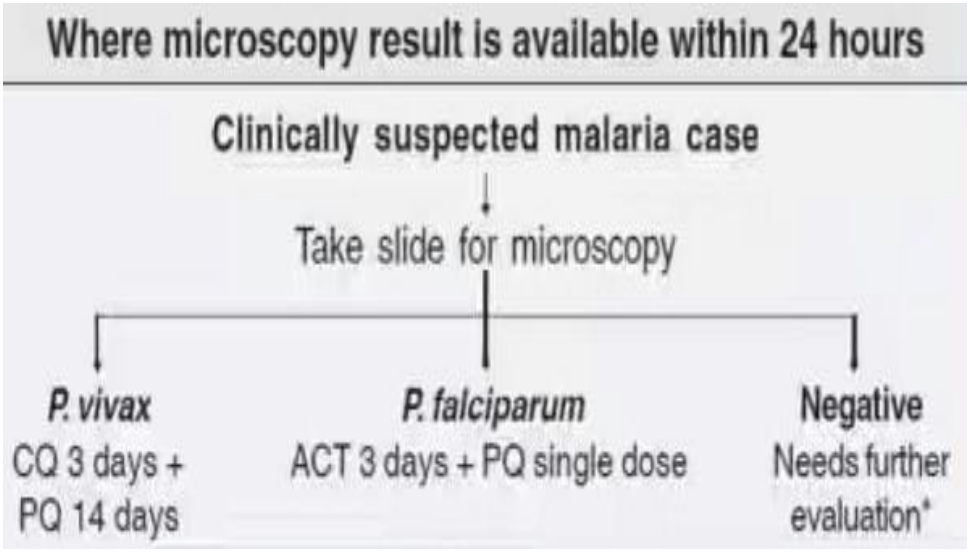

Fig:1 Treatment of malaria (24hrs)

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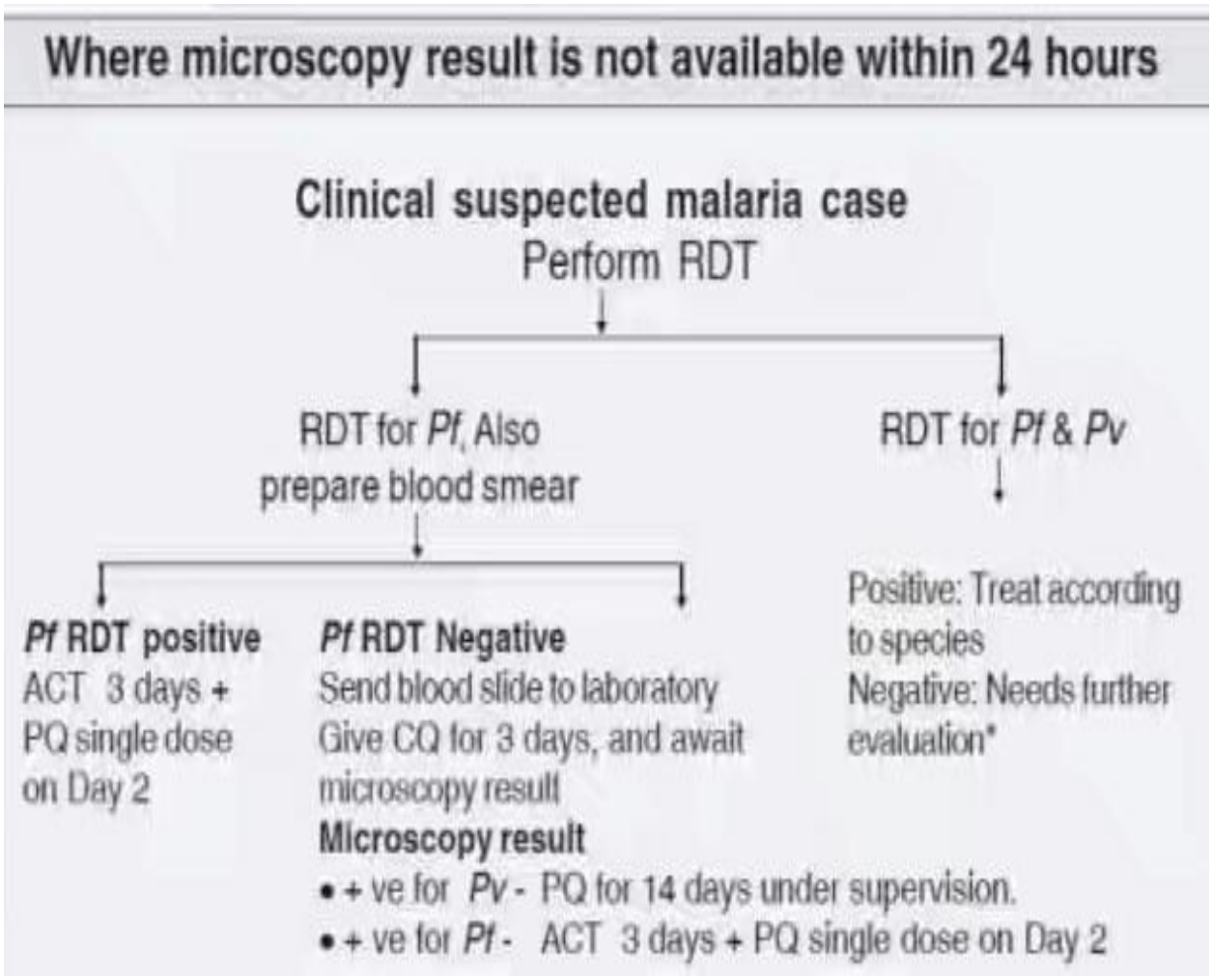

Fig:2 Treatment of malaria (not available with in 24hrs)

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Mechanism of Malaria:

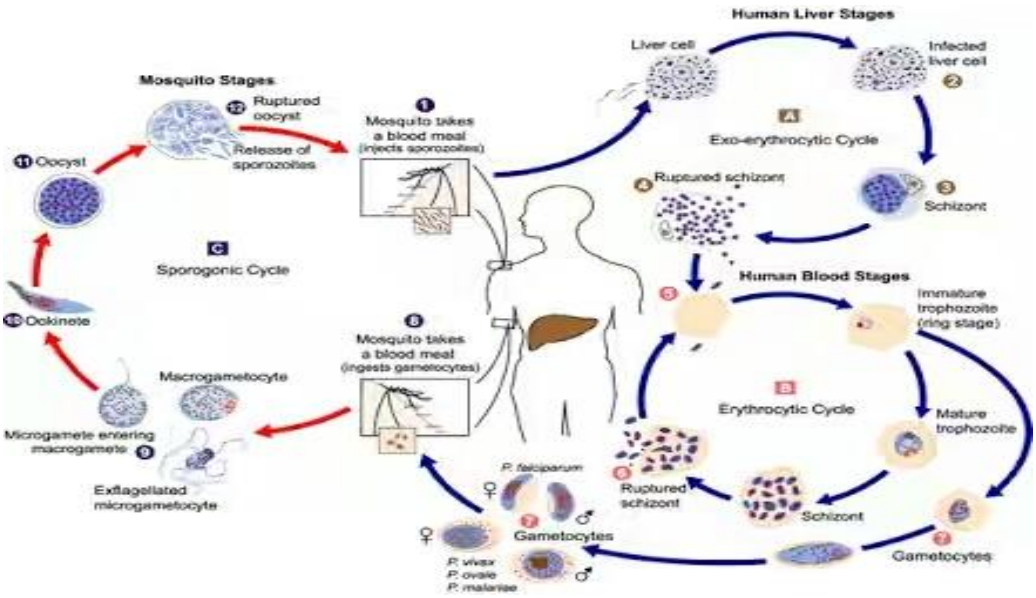

Fig: 3 Malaria In Human And *Anopheles Mosquito*.

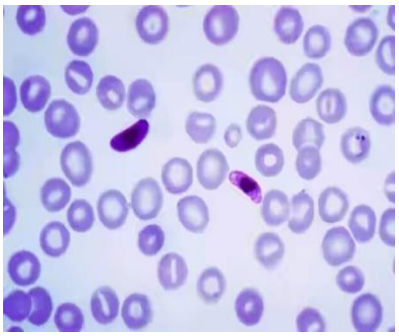

Fig:4 Plasmodium Infected RBC

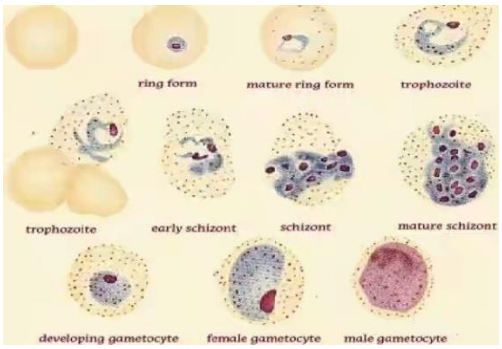

Fig:5 Stages Of Plasmodium In RBC

Allopathy Medicines for Treatment Of Malaria:

1. Artesunate
2. Quinine
3. Artemether
4. αβ Arteether

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5. Doxycycline
6. Mefloquine
7. Bulaquine
8. Chloraquine
9. Proguanil
10. Mepacrine

Herbal Medicines for Treatment Of Malaria:

1. Artemisia annua B.S: *Artemesia absinthium* Fam: Compositae

Fig: 6 Artemisia annua

2. Karanja B.S: *Karanja tree* Fam: Fabaceae

Fig: 7 Karanja

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3. Amla B.S: *Phyllanthus emblica* Fam: Phyllathaceae

Fig:8 Amla

4. Cinnamon B.S: *Cinnamomum verum* Fam: Lauraceae

Fig: 9 Cinnamon

5. Neem B.S*: Azadirachta indica* Fam: Meliaceae

Fig: 10 Neem

6. Shikakai B.S: *Acacia concinna* Fam: Fabaceae

Fig: 11 Shikakai

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Ayurvedic Preparations In Treatment Of Malaria:

1. Mahajwaavankusha Rasa
2. Sheetamani Rasa
3. Vishmushtyadivati
4. Talam Bhasma
5. Sudarshana Churna
6. Karanja Churna

Conclusion:

Malaria is caused by the organism of Plasmodium species. The malaria is treated by both the way of allopathic and ayurvedic medicines. Here we reveled the antimalarial herbs. In this review we tried to reach the poor people awareness for malaria.

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