

A photograph of a woman with dark skin and braided hair, wearing a white tank top, holding a young child in a bright yellow-green top. They are outdoors in a rural setting with traditional thatched-roof buildings and trees in the background. The text is overlaid on the image in yellow.

Malaria and herbal therapies: Where science and traditional knowledge meet

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Malaria in a historical perspective

- Malaria is still the most relevant parasitic disease in the tropics(500 million clinical cases each year, more than one million of deaths, most in children under five and pregnant woman)

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Malaria in a historical perspective

- Herbal therapies have always played an important role in health, since developments in countries where health service are low and around 80% of people use TM for their primary health care.
- Interesting in TM...
- (Artemisia in China and Quinina in Europe)

Artemisia annua
PROVENIENÇA: A. B. V. A. L. H. A.
TRANSPLANTAR: 31/08/04
Espacamento: 1m x 1m
Nº de plantas: 25

Traditional – definition

The total sum of knowledge, skills, and practices based on theories, beliefs and indigenous experiences from different cultures, whether explicable or not, used in the maintenance of health, prevention, diagnosis, improvements or treatment of physical and mental diseases and social well-being, passed from one generation to other orally or written.

- Herbal therapies and other local knowledge based treatments precede science-based medicine;

conventional medicine

- Conventional medicine is based on a particular, materialist, cosmology (infecting agents and immune systems);
- Its success (partially due to the promotion of better hygiene) raised political support in detriment of traditional forms of healing;

Conventional medicine and colonialism

- Colonial powers imported their vision on medical treatment in the colonies;
- In colonial Mozambique, for example, traditional healers were forbidden to practice and were persecuted;
- However, neither the colonial nor the post-colonial states were able to provide sufficient access to conventional medical services.

Rebirth of traditional medicine

- The deficient access to conventional health services implies that in rural areas people remain dependent on traditional (herbal) therapies (Ouagadougou meeting in 2000);
- Declaration of the Decade of Development of African Traditional Medicine
- Regulation of traditional (herbal) medicine by the National Policy approved in 2005.

Actors in the rebirth of traditional healers

- International agencies (AU, WHO)
- Government agencies (MISAU, INS, M(ES)CT)
- Traditional healers (AMETRAMO, PROMETRA others)
- Researchers (UEM, INIA/IIAM)

The agenda for research on traditional medicine

- Mapping of medicinal plants used on traditional medicine (AU sponsored missions to Manica with ensuing publication of results) this activity continues;
- Police on traditional and alternative medicine
- Legislation of the practice of trad.and alternative medicines
- Creation of Scientific Counseil of Ethnobotany
- Research on malaria:
 - a) Therapeutic efficiency of *Artemisia annua*
 - b) prevention trough nutrition
 - c) Phytochemical studies on medicinal plants pointed by TH and existing in Herbarium
 - d) study of natural repelents

Relevance of research on *Artemisia annua*

- No dependence on highly qualified expertise
- No dependence on imported medicine
- No dependence on pharmacies «Green Pharmacies»
- No Intellectual Property Rights-related restraints on use, improvement and research.

INS Research on efficiency of *Artemisia annua*: Method

- Standardized treatment (7 days 6 portions of infusion/tea, total 1 liter)
- Tests of presence of parasites in patients treated with *Artemisia annua* and control group with fansidar;
- Only patients between 16 and 60 years old who signed a declaration of consent and suffered from malaria in a light degree;
- Daily therapeutic control during first week and analysis of blood samples on day 14 and 28.

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INS Research on efficiency of *Artemisia annua*: Results

- Symptoms in *Artemisia* and Fansidar decline at the same rate
- Number of parasites decreases faster in Fansidar than in *Artemisia*;
- Final efficiency on day is 98% in Fansidar and 90% in *Artemisia*;
- Renal elimination of Artimisinina is faster than Fansadir (less post-treatment effects);
- Artimisinina seems to have a stronger gameticide impact, implying a stronger reduction of the risk of contamination.

Remaining issues

- Efficiency of Artemisia is lower(90%) than Fansidar(98%), conventional treatment remain important;
- Efficiency of Artemisia is probably affected by variation in artemisinin contents between plants, crops and genetic lines, capacity to monitor content is needed;
- Optimization of the dosage and studies on recrudescence are needed.

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Conclusions¹

- The use of *Artemisia annua* infusions will make malaria treatment cheaper and more accessible;
- *Artemisia annua* treatment does not make conventional medicine redundant;
- Herbal therapy (if well administered and controlled) can be an efficient component in the battle against malaria;
- Application of herbal therapy for prevention and treatment will promote integration of traditional and conventional health workers in one system;

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