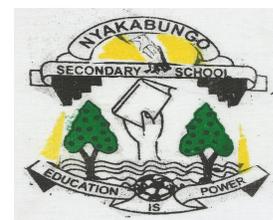




Local Anti-Malaria Medicine

Sarah Joseph, Mkama Charles and Denick Mashanga



Introduction:

Most malaria deaths occur in children in rural areas of sub-Saharan Africa. A major cause is lack of access to prompt effective treatment. Those that present with severe malaria have short histories of illness, emphasizing the speed of disease progression if not treated promptly and effectively. For those children who manage to reach health facilities, hospital based data indicates that the episode commences with a febrile illness 1–3 days prior to admission, and neurological manifestations within 12 hours of admission. There is therefore a brief opportunity (0–16 hours) for therapeutic intervention - to prevent *P. falciparum* parasites from maturing to the more pathogenic sequestered stages, organ failure, and high risk of death (15–20%) for hospital admissions.

Human malaria likely originated in Africa and has coevolved along with its hosts, mosquitoes and non-human primates. The first evidence of malaria parasites was found in mosquitoes preserved in amber from the Palaeogene period that are approximately 30 million years old. Malaria have been a human pathogen for the entire history of the species. Humans may have originally caught *Plasmodium falciparum* from gorillas. About 10,000 years ago malaria started having a major impact on human survival which coincides with the start of agriculture (Neolithic revolution), a consequence was natural selection for sickle-cell disease. The three major types of inherited genetic resistance (sickle-cell disease, thalassaemias, and glucose-6-phosphate dehydrogenase deficiency) were present in the Mediterranean world by the time of the Roman Empire, about 2000 years ago. In solving malaria problem plants has been used as a traditional medicine for long period of time. This article address the use of local anti malaria plants specifically Azadirachta and Vernonia in Lake Zone Mwanza Tanzania.



Materials. Bulks/ leaves, water, container, source of heat, bottle, filter, motor and pesto, package materials.

Methods of preparation.

Pick leaves early in the morning before sun shining
Dry them in dim light area (free sun rays area) within 5 days (to stop loos of greenish)
Sixth day dry it to sun rays to remove moistures from the bulks/leave
Grain it in the area that is free from sun rays and blowing winds.

Make sure that you get very fine powder of grained bulks/leaves by using filter.

Pack the powder in dry package materials

Indicate date of package and expired date(one year from package date)

How to use, dosage.

Boiled water up to 100°

Measure one litre of boiled water and mix it with one spoonful of grained bulks/leaves powder.

Shake the mixture.

Cover the mixture and leave it at least for 30 up 45 minutes.

Drink the mixture regarding the instructions bellow eg; 167 ml after each 6 hours, equally to 1000ml/ one litre a day for people with 41+ years.

Use a dose for 7 consecutive days (approximately to 7,000ml/ 7 litres.

Weight(kg)	Days	Dose(litre)
12-16	7	¼
17-30	7	½
31-40	7	¾
41+	7	1

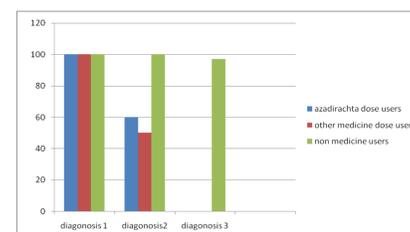


Vernonia amygdalina, a member of the *Asteraceae* family, is a small shrub that grows in the tropical *Africa*. The leaves may be consumed either as a vegetable (macerated leaves in soups) or aqueous extracts as tonics for the treatment of various illnesses and suffering from parasitic infections. Many herbalists and *naturopathic* doctors recommend aqueous extracts for their patients as treatment for emesis, nausea, diabetes, loss of appetite-induced abrosia and dysentery .

Method 1

AZADIRACHTA INDICA(MWAROBAINI)

Azadirachta is a medium-sized tree that grows 10 to 15 meters high, with wide spreading leaves are shiny dark green on the upper surface and pale green on the underside. Flowers are numerous, small, white and fragrant. Azadirachta grows in tropical and sub tropical's areas that receive moderate rainfall such as Lake Zone. Azadirachta is very famous for treating malaria and other relating diseases among Tanzanian especially in remote areas where health services are insufficient. This was commonly used before independence and up to date.



Graph01: Experiment done among 09 malaria affected around Mwanza city (march- august 2012)

The experment shows

Diagnosis 1, all tested were found with plasmodium parasite at the same level (100%)

Diagnosis 2, among azadirachta dose users parasites were remained about 60%, other medicine dose users remained50% while non dose users their parasites were constant

Diagnosis 3, among azadirachta dose use and other medicine dose users no parasites seen, while non dose users their parasites decreased for few percentages.

Conclusions:

We missed the road towards the conquest of malaria these are pertinent and substantive issues in this field. Experience in parasitic infections and involvement in the Global Initiative for Traditional Systems of Health (GIFTS), might set out and address most issues concerning Traditional Herbal Medicines for Modern World. If malaria is old in some parts of the world means that our elder fathers and mothers were fighting it, necessary question is what ways did they use and what kind of materials? To address such question we should look back to our beautiful vegetations. They are our natural boardgard, we can smile and shine by using them. . Azadirachta Indica(Mwarobaini) and *Vernonia amygdalina*(*Mtukutu/ mubhilizi*) is very famous for treating malaria and other relating diseases. Among azadirachta and *Vernonia amygdalina* (*Mtukutu/ mubhilizi*) dose users plasmodium's parasites were decreased almost negatively seen in the elastration given. Our young and old scientists should be well trained and developed for good health of our earth.

References:

- Ademola IO, Eloff JN (February 2011). "Anthelmintic activity of acetone extract and fractions of *Vernonia amygdalina* against *Haemonchus contortus* eggs and larvae". *Trop Anim Health Prod* **43** (2): 521–7.
- Buttler, G. W. and Bailey, R. W. (1973). *Chemistry and Biochemistry of Herbage*, Vol.1 Academic Press, London and New York.
- Huffman, M.A., Seifu, M (1989). "Observations on the illness and consumption of a possibly medicinal plant *Vernonia amygdalina* (Del.), by a wild chimpanzee in the Mahale Mountains National Park, Tanzania". *Primates*
- Hyde, M.A., Wursten, B.T. & Ballings, P. (2012). *Flora of Zimbabwe: Species information: Vernonia amygdalina*.
http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=158120, retrieved 30 September 2012.
- Nwanjo HU (2005). "Efficacy of aqueous leaf extract of *Vernonia amygdalina* on plasma lipoprotein and oxidative status in diabetic rat models". *Nigerian J Physiological Sciences* **20** (1-2): 30–42.
- Opata, M.M., Izevbigie, E.B. (2006). "Aqueous V. amygdalina Extracts Alter MCF-7 Cell Membrane Permeability and Efflux". *Int. J. Environ. Res. Public Health* **3** (2): 174–179.
- Song YJ, Lee DY, Kim SN, Lee KR, Lee HW, Han JW, Kang DW, Lee HY, Kim YK (2005). "Apoptotic potential of sesquiterpene lactone ergolide through the inhibition of NF-κB signaling pathway". *J. Pharmacol* **57** (12): 1591–1597.

Acknowledgements:We would like to thank the following people who assisted us on this project, Mr .Kapiga Said of Mwanza Medical Research, Miss Betina of ADRISHA Mwanza, MissGeneroza Mtayomba of JEM HERBALIST Mwanza, for helping us on selection of the best local Ant Malaria and on how to prepare those medicines. Also we thank The Head mistress of Nyakabungo secondary Bi Rebecca Henry,our teacher Miss Rosemary Emmanuel, Mr Cyprian Luhega together with other teachers for helping ,directing and advising on writing this project.

Further information:

Download at: www.youngscientists.co.tz/posters